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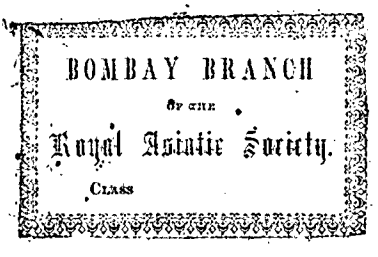


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# Indian Meteorological Memoirs:

BEING

OCCASIONAL DISCUSSIONS AND COMPILATIONS OF METEOROLOGICAL DATA

RELATING TO

# INDIA AND THE NEIGHBOURING COUNTRIES.

134429

Published by order of His Excellency the Viceroy and Governor General of India in Council.

UNDER THE DIRECTION OF

HENRY F. BLANFORD, F.R.S.,

METEOROLOGICAL REPORTER TO THE GOVERNMENT OF INDIA.

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VOL. III.

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| 283 | 17 | Kasauli | 1886 | „ | 0'30 | ... |
| 287 | 22 | Dera Ghazi Khan | 1868 | Year | 1668 | 1868 |
| 289 | 23 | Muzaffargarh | Mean up to 1883 | May | 2'32 | 0'32 |
| 299 | 35 | Amritsar | „ „ 1886 | October | 05'2 | 0'52 |
| 301 | 37 | Hoshiarpur | „ „ 1883 | December | 1'9 | 1'19 |
| 309 | 45 | Delhi | „ „ „ | Total | 26'2 | 26'92 |
| 311 | 47 | Chakrata | „ „ „ | November | 0'23 | 0'28 |
| 323 | 60 | Muzaffarnagar | 1846 | June | '68 | 7'68 |
| 325 | 62 | Meerut | 1855 | October | ... | ? |
| 337 | 74 | Muttra | Mean up to 1883 | Total | 25'2 | 25'28 |
| 338 | 75 | Agra | 1881 | March | 0'06 | 0'96 |
| 356 | 98 | Gorakhpur | 1853 | April | Blank. | ... |
| 366 | 108 | Bhurtpore | Heading | ..... | No. 10 | No. 108 |
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| 376 | 119 | Erinpura | 1880 | Total | 13'00 | 13'60 |
| 382 | 129 | Neemuch | 1869 | February | Blank. | ... |
| 395 | 145 | Chupra | 1864 | November | '15 | 0'15 |
| 406 | 158 | Godda | Mean up to 1883 | April | 0'1 | 0'41 |
| 414 | 169 | Rampore Bauleah | 1873 | January | 0'08 | 0'48 |
| 423 | 180 | Burdwan | 1868 | August | 2'60 | 29'60 |
| 425 | 182 | Howrah | 1885 | June | 3'40 | 13'40 |
| 426 | 183 | Midnapore | Mean up to 1886 | December | '1330 | 0'31 |
| 428 | 185 | Berhampore | „ „ „ | Total | 5'356 | 55'36 |
| 430 | 188 | Jessore | 1863 | February | 0'0 | 0'30 |
| 435 | 193 | Saugor Island | 1869 | October | '576 | 5'76 |
| 436 | 193 | „ | Mean up to 1883 | Total | 73'9 | 73'89 |
| 445 | 205 | Jellasore | 1879 | „ | 3'81 | 43'81 |
| 448 | 208 | Cuttack | 1881 | April | '950 | 0'59 |
| 461 | 224 | Silchar | Mean up to 1883 | „ | 18'85 | 118'85 |
| 477 | 243 | Bhandara | Mean up to 1886 | April | 0'5 | 0'56 |
| 482 | 249 | Chanda | Mean up to 1883 | Total | 0'95 | 50'95 |
| 492 | 263 | Kurrathee | 1867 | December | ... | ? |
| 493 | ... | „ | Mean up to 1886 | Total | 7'4 | 7'44 |
| 496 | 268 | Bhuj | Mean up to 1883 | „ | 4'85 | 14'85 |
| 512 | 287 | Mahableshwar | 1886 | Year | 1186 | 1886 |
| 513 | 289 | Baura | 1873 | „ | 1673 | 1873 |
| 515 | 291 | Goa | Mean up to 1886 | September | 0'61 | 10'61 |
| 583 | 381 | Shevaroy Hills | 1870 | Total | 62'38 | 62'30 |
| 598 | 399 | Mangalore | 1863 | „ | 150'47 | 150'47? |
| 602 | 403 | Calicut | 1864 | July | 43'79 | 34'79 |
| 610 | 416 | Newera Eliya | 1873 | April | 6'07 | 9'07 |

## ADVERTISEMENT.

The present Memoir when complete will form Volume III of the Memoirs. The Part now issued describes the normal or average rainfall of India. Part II will treat of its vicissitudes and variations in past years; and the Appendices containing the tabular data on which the descriptive text is based, will complete the Volume.

BANGALORE, *February 1886.* H. F. B.

# INDIAN METEOROLOGICAL MEMOIRS.

*I.—The Rainfall of India. A Monograph by* HENRY F. BLANFORD, F.R.S., *Meteorological Reporter to the Government of India.*

## INTRODUCTION.

A sense of the paramount importance of a knowledge of the distribution of the rainfall in time and space, in a country such as India, the wealth and welfare of which depend above all things on its agriculture, prompted me, not long after the formation of the Meteorological Department of Bengal, in 1867, to turn my attention to the collection of the manuscript registers of the rainfall of past years, then extant in the public offices of Calcutta; and these, with the addition of a few registers previously published, furnished the materials for a short paper on the rainfall of Bengal, that appeared in the XXXIXth volume of the Journal of the Asiatic Society of Bengal. It subsequently became an object to bring together, in like manner, the rainfall records of other parts of India; but at that time, and long afterwards, there were many difficulties in the way of such an undertaking. In the first place, it required no small amount of enquiry and local search, to find out where such records existed; and when this had been accomplished, the influence of authority was necessary to obtain copies, all of which could only be done effectually by officers of the local Governments. Until, therefore, the whole system of meteorological registration was centralized under the Government of India in 1875, the work of collection went on but slowly. A certain amount of data were obtained for Northern and Central India, chiefly from published sources; the most important of which were the annual reports of the Meteorological Reporters of the North-Western Provinces and the Punjab, and of the Sanitary Commissioner of the Central Provinces, (Dr. S. C. Townshend); and these, together with the registers already collated for Bengal, furnished the materials for a table of average rainfall, illustrated by a chart, which was published in a paper on the 'Winds of Northern India' in the 164th volume of the Philosophical Transactions.

When, in 1875, a Meteorological Department was created under the Government of India, a new impulse was given to the work. In the report on the reorganization of the meteorological establishments submitted to Government in that year, the duty of collecting and investigating old rainfall statistics was prominently put forward as an object deserving of immediate attention, and, for two or three years, a small sum was provided in the budget of the department for copying and reducing such registers. In 1875, I received from the Secretary to the Government of the North-Western Provinces, a large series of old registers kept at the sudder stations of those provinces, chiefly published in the Government Gazette, which carried back the records of certain stations to the year 1844. In 1877, Sir Robert Egerton, very shortly after his appointment to the Lieutenant-Governorship of the Punjab, caused an examination to be made of the rainfall records which had

been accumulated in that province since 1852, with a view to their reduction and publication. Those for the years prior to 1862 were, on examination, pronounced to be untrustworthy, and were rejected; but those for the subsequent years, in which more attention had been given to the work of registration, were reduced to monthly totals, and the result published in the Government Gazette. On a subsequent examination of the original registers, it appeared to me that, judged by internal evidence, a few of those relating to years anterior to 1862 might be accepted, and these I have included, on my own responsibility. A still earlier series (1844—50), for certain stations in the Cis-Sutlej states of the Punjab, were obtained from a printed return in the records of the Revenue Board of the North-Western Provinces, which also contained registers for most of the sudder and sub-divisional stations in the North-Western Provinces, and for a few in the Saugor and Nerbudda territories, (now a portion of the Central Provinces). In Bombay, Mr. Charles Chambers had obtained such manuscript registers as were extant, for the preparation of his work on the meteorology of the Bombay Presidency; and these were afterwards handed over to me, and completed, as far as possible, by others obtained through the assistance of the Sanitary Commissioner of the Government of Bombay. In like manner, in Madras, Mr. Pogson had collected and examined the old registers of that Presidency. For the years prior to 1863, there was little of any value. But those of subsequent years, recorded on a system reorganized under the superintendence of Mr. Pogson, are of a much better character, and the originals of these were placed in my hands for the extraction of such data as were required. In the case of the remaining provinces, *viz.*, the Central Provinces, Hyderabad, Assam, Central India, Mysore, and British Burma, the registers existing in the central or local offices have been copied and communicated to me by the Sanitary Commissioners of the two first-named provinces, and by the orders of the local Government elsewhere. Such are the bulk of the materials to be discussed in the present paper.

Registers for a few years antecedent to 1856, relating to a large number of stations in all parts of India, had been collected by the Messrs. Von Schlagintweit, or handed over to them by Government officials for the preparation of their work on India and High Asia. As these years were, for the most part, deficient in the local records, I visited Munich in 1878, for the purpose of examining and obtaining copies of the registers in question. With one or two exceptions, however, they do not relate to any later years than 1856, and from 1857, the year of the sepoy mutinies, to 1862 or 1863, most of the registers show a hiatus, which it is now impossible to fill.

For a few registers which rank with the best, I am indebted to private observers. That of Nazira, in Assam, has been furnished to me by Dr. Foster, for many years the Superintendent of the Assam Company's tea-garden; that of Pasumalei, near Madura, by the Rev. G. T. Washburn; that of Aska, in the Northern Circars, by Mr. Minchin; that of the Murree brewery, by the proprietor, Mr. Whymper; and a few registers, generally for short terms, have been extracted from the Journal of the Asiatic Society of Bengal and other publications. The latest addition is a register of the rainfall at Katmandu, extending from 1853 up to the present time. For this I am indebted to the kindness of Mr. Girdlestone, the late Resident at the capital of Nepal.

The registers thus brought together, more especially those that relate to the earlier years, are of very various degrees of merit. Very few are known to have been recorded by persons whose habits and attainments are of themselves a sufficient guarantee of the

trustworthiness of their work; and before the great majority of them could be accepted as of even approximate accuracy, it has been necessary to subject them to a careful scrutiny, applying such tests as the nature of the case admits of. These tests are of two kinds. First, a comparison of the average and also the variations of the earlier years at any given station with those of the last 10 or 12 years, during which much more care and attention have been given to rainfall registration; and, secondly, a comparison of the variations in corresponding years and months at neighbouring stations, situated under approximately similar conditions. In a few cases, two or more cotemporary registers for the same station are available for this purpose, but such cases are very few. Registers which fail to satisfy either of the above tests have been rejected, or, if admitted provisionally, are noticed and marked with a (?). The data thus selected cannot, of course, pretend, as a whole, to a high degree of accuracy. But were we to reject all but those the accuracy of which is guaranteed by the conditions of observation, we should have to throw aside nearly all that relates to years anterior to 1864 or 1865, and indeed a considerable part of the later records; and it seems to me that, provided we content ourselves with a discussion of the broader features of the rainfall variation, in space and time, the tests that I have applied are sufficient to preserve us from serious error. And these broader features are all that I shall attempt to discuss in the present paper.

The majority of the stations, the registers of which are given in the tables at the end of this paper, are the sudder stations in the different Governments, the seats of the Civil Courts, and the places of residence of the Chief Civil Officers of Government. In the case of native states, they are the stations at which reside the Political Agents and other representatives of the Government of India. For the years subsequent to 1865, many of the registers are those of the meteorological observatories established in that and the following years; but nearly all of those relating to previous years, and those of later years for stations at which no regular observatory exists, are registers kept by some subordinate officer, usually a native, under the general superintendence either of the Magistrate or the Medical Officer of the station.

Respecting the kind of gauge used, information for the earlier years is very deficient. Of late years (since 1867) Symons's gauge has been in universal use in Bengal, and since 1863 in Madras; and Glashier's gauge in the Central Provinces. In Bombay, Symons's gauge was introduced universally in 1877. In the North-Western Provinces, the Punjab, and formerly, I believe, in Bombay, excepting at observatories, Fleming's gauge, with a float carrying a graduated rod, has been in general use. In general, the gauges have been placed on the ground, the mouth being about one foot above the surface in the case of the Symons's gauges, about 3 feet in that of Fleming's gauges; but it cannot be asserted that this rule has always been observed at other than the regular meteorological observatories, where Symons's gauges alone are employed. In the map which accompanies this paper, Plate I, the observatories are distinguished by a special conventional symbol.

The stations enumerated are 434 in all, distributed through the several provinces of India and its dependencies, as shown in the following table, which also gives the periods to which the registers respectively relate. The registers are not in all cases complete for all the years enumerated, but I have not thought it desirable to omit those of broken portions of years, when there is no reason to doubt their validity. The serial number appended to each station is that of its order in Appendix A.

*List of Stations for which the Rainfall Registers of past years are tabulated in Appendix A.*

## CASHMERE.

| Serial No. | | |
|---|---|---|
| 2. | Leh | 1876–83. |
| 1. | Gilgit | 1879–81. |

## PUNJAB.

| Serial No. | | |
|---|---|---|
| 45. | Delhi | 1844–55, 1859–83. |
| 43. | Hissar | 1844–54, 1861–83. |
| 46. | Gurgaon | |
| 41. | Karnal | 1844–50, 1862–83. |
| 44. | Rohtak | 1844–54, 1862–83. |
| 42. | Sirsa | 1844–51, 1858–83. |
| 36. | Ferozepore | 1844–56, 1862–83. |
| 40. | Umballa | 1850–83. |
| 39. | Ludhiana | 1856–56, 1862–83. |
| 34. | Lahore | 1851–55, 1861–83. |
| 38. | Jullundur | 1852–83. |
| 31. | Sialkot | 1852–55, 1861–83. |
| 25. | Rawalpindi | 1852–53, 1860–83. |
| 19. | Kohat | 1852, 1854–56, 1862–83. |
| 7. | Dharmsala | 1853–55, 1861–83. |
| 18. | Peshawar | 1853–56, 1862–83. |
| 27. | Shahpur | 1854–83. |
| 33. | Gurdaspur | 1857–83. |
| 37. | Hoshiarpur | |
| 4. | Abbottabad | 1859–83. |
| 23. | Muzaffargarh | 1860–83. |
| 29. | Montgomery | |
| 35. | Amritsar | |
| 26. | Jhelum | 1861–83. |
| 16. | Simla | 1862–83. |
| 20. | Bannu | |
| 21. | Dera Ismail Khan | |
| 22. | Dera Ghazi Khan | |
| 24. | Mooltan | |
| 28. | Jhang | |
| 30. | Gujrat | |
| 32. | Gujranwala | |
| 3. | Mansahra | 1868–83. |
| 6. | Dalhousie | |
| 8. | Nurpur | |
| 9. | Pathankot | |
| 10. | Palampur | |
| 11. | Kangra | |
| 12. | Hamirpur | |
| 13. | Sultanpur | |
| 15. | Kotgarh | |
| 17. | Kasauli | |
| 5a. | Murree (Brewery) | 1870–83. |
| 5b. | Murree (Observatory) | 1875–83. |
| 14. | Kilba | 1882–83. |

## N.-W. PROVINCES.

| Serial No. | | |
|---|---|---|
| 75. | Agra | 1844–56, 1860–83. |
| 53. | Almora | 1844–83. |
| 49. | Dehra Dun | 1844–55, 1860–83. |
| 58. | Saharanpur | |
| 60. | Muzaffarnagar | |
| 61. | Bijnor | |
| 62. | Meerut | |
| 63. | Bulandshahr | |
| 67. | Moradabad | |
| 68. | Bareilly | |
| 69. | Budaun | |
| 70. | Shahjahanpur | |
| 71. | Farrukhabad | |
| 73. | Mainpuri | |
| 74. | Muttra | |
| 76. | Etawah | |
| 89. | Cawnpore | |
| 90. | Fatehpur | |
| 92. | Hamirpur | |
| 93. | Banda | |
| 94. | Allahabad | |
| 98. | Gorakhpur | |
| 99. | Azamgarh | |
| 101. | Ghazipur | |
| 102. | Mirzapur | 1844–55, 1860–83. |
| 103. | Benares | |
| 64. | Aligarh | 1844–56, 1860–83. |
| 51. | Pauri | 1844–54, 1860–83. |
| 100. | Jaunpur | 1844, 1847–55, 1861–83. |
| 59. | Roorkee | 1848–54, 1860–83. |
| 55. | Naini Tal | 1849–83. |
| 65. | Rudarpur | 1850–54, 1864–83. |
| 48. | Mussooree | 1852–83. |
| 72. | Etah | 1860–83. |
| 95. | Jhansi | |
| 96. | Lalitpur | |
| 91. | Jalaun | 1861–83. |
| 50. | Srinagar | 1864–83. |
| 54. | Pithoragarh | |
| 56. | Haldwani | |
| 57. | Champawat | |
| 66. | Pilibhit | |
| 104. | Robertsganj | |
| 97. | Basti | 1866–83. |
| 47. | Chakrata | 1869–83. |
| 52. | Ranikhet | 1871–83. |
| 105. | Dudhi | 1874–83. |

*List of Stations for which the Rainfall Registers of past years are tabulated, &c.*—continued.

## OUDH.

| Serial No. | | |
|---|---|---|
| 77. | Kheri | 1867—83. |
| 78. | Sitapur | |
| 79. | Hardoi | |
| 80. | Bahraich | |
| 82. | Fyzabad | |
| 83. | Nawabganj | |
| 84. | Lucknow | 1867—83. |
| 85. | Unao | |
| 86. | Sultanpur | |
| 87. | Rae Bareli | |
| 88. | Partabgarh | |
| 81. | Gonda | 1868—83. |

## RAJPUTANA.

| Serial No. | | |
|---|---|---|
| 113. | Beawar | 1856—83. |
| 125. | Kherwara | 1857—83. |
| 123. | Mount Abu | 1860—83. |
| 115. | Deoli | 1861—64, 1866—83. |
| 111. | Ajmere | 1863—83. |
| 112. | Nusseerabad | 1866—83. |
| 108. | Bhurtpore | 1866—68, 1871—83. |
| 119. | Erinpura | 1867—74, 1876—83. |
| 109. | Jeypore | 1867—83. |
| 124. | Kotra | 1870—83. |
| 121. | Jhalrapatam | 1871—83. |
| 107. | Uhwur | 1871—73, 1875—83. |
| 114. | Tonk | 1872—83. |
| 120. | Kotah | |
| 116. | Shahpoora | 1873—83. |
| 126. | Banswara | |
| 117. | Jodhpore | 1874—83. |
| 122. | Oodeypore | |
| 110. | Sambhar | 1875—83. |
| 106. | Bickaneer | 1878—83. |
| 118. | Pachpadra | 1879—83. |

## CENTRAL INDIA.

| Serial No. | | |
|---|---|---|
| 129. | Neemuch | 1860—69, 1877—83. |
| 137. | Nagode | 1863—83. |
| 130. | Agar | 1868—83. |
| 131. | Bhopal | |
| 132. | Rutlam | |
| 133. | Indore | |
| 134. | Sirdarpore | |
| 136. | Nowgong | 1868—83. |
| 128. | Goona | 1871—83. |
| 127. | Morar | 1872—83. |
| 138. | Sutna | |
| 139. | Rewah | |
| 135. | Manpur | 1872—82. |

## NEPAL.

| Serial No. | | |
|---|---|---|
| 140. | Katmandu | 1851—83. |

## BENGAL.

| Serial No. | | |
|---|---|---|
| 192a. | Calcutta | 1829—83. |
| 197. | Dacca | 1827—34, 1852—54, 1860—83. |
| 179. | Bankoora | 1831—32, 1853—55, 1859—83. |
| 159. | Darjeeling | 1837, 1850—55, 1860—63, 1867—83. |
| 147. | Patna | 1842—57, 1867—83. |
| 188. | Jessore | 1848—54, 1859—63, 1866—83. |
| 185. | Berhampore | 1848—54, 1859—83. |
| 203. | Chittagong | 1848—54, 1860—61, 1864—83. |
| 165. | Rungpore | 1848—54, 1860—62, 1867—83. |
| 148. | Mozufferpore | 1846—54, 1860—63, 1867—83. |
| 157. | Bhagalpur | 1848—54, 1860—83. |
| 178. | Soory | 1848—54, 1867—83. |
| 154. | Monghyr | 1848—52, 1854, 1857, 1859—83. |
| 172. | Hazaribagh | 1848—52, 1854—55, 1860, 1867—83. |
| 210. | Pooree | 1848—52, 1854—55, 1860—61, 1863—83. |
| 208. | Cuttack | 1848—52, 1860—64, 1866—83. |
| 167. | Maldah | 1848—52, 1860—83. |
| 173. | Ranchee | |
| 200. | Noakholly | |
| 177. | Purulia | 1848—52, 1867—83. |
| 141. | Motiharee | 1849—52, 1859—64, 1867—83. |
| 146. | Arrah | 1849—52, 1860—83. |
| 145. | Chupra | 1849—54, 1859—83. |
| 151. | Gya | 1849—54, 1860, 1867—83. |
| 169. | Rampore Bauleah | 1851—54, 1859—83. |

*List of Stations for which the Rainfall Registers of past years are tabulated, &c.*—continued.

## BENGAL—*contd.*

| Serial No. | | |
|---|---|---|
| 194. | Mymensingh | 1851—54, 1864—83. |
| 170. | Pubna | 1851—54, 1866—83. |
| 198. | Comillah | 1852—54, 1860—83. |
| 191. | Burrisal | 1852—54, 1868—83. |
| 187. | Furreedpore | 1853—54, 1869—83. |
| 166. | Dinagepore | 1854, 1859—83. |
| 168. | Bogra | 1854, 1860—61, 1863—83. |
| 183. | Midnapore | 1854, 1861—63, 1867—83. |
| 181. | Hooghly | 1854, 1865—83. |
| 206. | Balasore | 1859—83. |
| 180. | Burdwan | 1860—83. |
| 186. | Kishnaghur | 1861—83. |
| 193. | Saugor Island | 1867—83. |
| 209. | False Point | 1867—83. |
| 144. | Buxar | 1868—83. |
| 182. | Howrah | 1868—83. |
| 162. | Baxa | 1869—83. |
| 163. | Jalpaiguri | 1869—83. |
| 176. | Chybassa | 1869—83. |
| 202. | Rangamatia Hill | 1869—83. |
| 143. | Sewan | 1870—83. |
| 149. | Barh | 1870—83. |
| 150. | Sasseram | 1870—83. |
| 152. | Jamooee | 1870—83. |

| Serial No. | | |
|---|---|---|
| 153. | Muddehpoora | 1870—83. |
| 156. | Purneah | 1870—83. |
| 171. | Palamow | 1870—83. |
| 189. | Busseerhat | 1870—83. |
| 192a. | Alipore (Jail) | 1870—83. |
| 195. | Kishorganj | 1870—83. |
| 196. | Atia | 1870—83. |
| 204. | Cox's Bazar | 1870—83. |
| 207. | Bhuddruck | 1870—83. |
| 142. | Durbhunga | 1871—83. |
| 155. | Kissengunge | 1871—83. |
| 164. | Cooch Behar | 1871—83. |
| 174. | Nya Doomka | 1871—83. |
| 175. | Gobindpur | 1871—83. |
| 184. | Tumlook | 1871—83. |
| 190. | Khoolna | 1871—83. |
| 158. | Godda | 1872—83. |
| 199. | Agartalla | 1872—83. |
| 161. | Mongpoo | 1873—83. |
| 205. | Jellasore | 1873—83. |
| 160. | Kurseong | 1875—80. |
| 192b. | Alipore (Obsy.) | 1877—83. |
| 201. | Demagiri | 1877—83. |

## ASSAM.

| Serial No. | | |
|---|---|---|
| 221. | Cherra Poonjee | 1832, 1851—54, 1860—61, 1863—69, 1871—83. |
| 216. | Gauhati | 1848—83. |
| 212. | Sibsagar | 1848—54, 1862—83. |
| 224. | Silchar | 1848—54, 1863—83. |
| 215. | Nowgong | 1848—56, 1860, 1862—83. |
| 211. | Dibrugarh | 1848—56, 1868, 1870—83. |
| 225. | Sylhet | 1849—55, 1860—83. |

| Serial No. | | |
|---|---|---|
| 214. | Tezpur | 1849—54, 1860—83. |
| 217. | Goalpara | 1849—54, 1868—83. |
| 213. | Nazira | 1861—77. |
| 220. | Shillong | 1866—83. |
| 222. | Samagoodting | 1868—78. |
| 218. | Dhubri | 1870—83. |
| 219. | Tura | 1870—83. |
| 223. | Kohima | 1879—83. |

## CENTRAL PROVINCES.

| Serial No. | | |
|---|---|---|
| 244. | Nagpur | 1826—32, 1854—83. |
| 228. | Jubbulpore | 1844—83. |
| 227. | Damoh | 1844—50, 1863—83. |
| 235. | Seoni | 1844—50, 1863—83. |
| 236. | Mandla | 1844—50, 1863—83. |
| 230. | Hoshangabad | 1844—51, 1854, 1863—83. |
| 229. | Narsinghpur | 1844—52, 1863—83. |
| 226. | Saugor | 1844—52, 1864—83. |
| 233. | Badnur (Betul) | 1844—54, 1863—83. |
| 240. | Sambalpur | 1861—83. |
| 247. | Hinganghat | 1863—78. |
| 234. | Chhindwara | 1863—83. |
| 238. | Bilaspur | 1863—83. |

| Serial No. | | |
|---|---|---|
| 241. | Raipur | 1863—83. |
| 243 | Bhandara | 1863—83. |
| 246. | Wardha | 1863—83. |
| 249. | Chanda | 1863—83. |
| 250. | Sironcha | 1863—83. |
| 234. | Khandwa | 1864—83. |
| 237. | Burha (Balaghat) | 1867—83. |
| 242. | Dhamtari | 1867—83. |
| 248. | Brahmapuri | 1867—83. |
| 245. | Arvi | 1869—83. |
| 239. | Saragaon | 1870—83. |
| 232. | Pachmarhi | 1871—83. |

## BERARS.

| Serial No. | | |
|---|---|---|
| 253. | Amraoti | 1859—83. |
| 255. | Buldana | 1859—62, 1865—83. |
| 252. | Bilichpur | 1859—67, 1869—83. |
| 258. | Wun | 1859—70, 1876—83. |

| Serial No. | | |
|---|---|---|
| 254. | Akola | 1861—83. |
| 256. | Yeotmal | 1865—83. |
| 257. | Basim | 1866—83. |
| 251. | Chikalda | 1866—70, 1876—83. |

*List of Stations for which the Rainfall Registers of past years are tabulated, &c.*—continued.

## HYDERABAD.

| Serial No. | | |
|---|---|---|
| 324. | Secunderabad | 1843—83. |
| 312. | Hingoli | 1864—83. |
| 325. | Hyderabad (Residency.) | 1869—83. |
| 323. | Bolarum | 1870—83. |
| 311. | Aurangabad | 1875—83. |
| 313. | Parbhani | 1876—83. |
| 314. | Bheer | |
| 315. | Nandair | |
| 316. | Indur | |
| 317. | Yelgandal | |
| 318. | Medak | 1876—83. |
| 319. | Ibrahimpatan | |
| 320. | Naldurg | |
| 321. | Bidar | |
| 322. | Gulbarga | |
| 326. | Nalgonda | |
| 327. | Khamam | |
| 328. | Shorapur | |
| 329. | Nagar Karnul | |
| 330. | Lingsugur | |
| 331. | Raichur | |

## BOMBAY.

| Serial No. | | |
|---|---|---|
| 284a. | Bombay (Colaba) | 1817—83. |
| 287. | Mahableshwar | 1820, 1842, 1844—47, 1861—83. |
| 298. | Poona | 1826—30, 1842, 1844—49, 1856—83. |
| 299. | Satara | 1836, 1844—48, 1861—83. |
| 305. | Belgaum | 1841—43, 1847, 1856—83. |
| 272. | Ahmedabad | 1843, 1862—83. |
| 288. | Ratnagiri | 1844—47, 1861—83. |
| 296. | Nasik | |
| 297. | Ahmednagar | |
| 307. | Dharwar | 1844—47, 1861—65, 1867—74, 1876—83. |
| 283. | Tanna | 1844—47, 1862—83. |
| 302. | Kolhapur | 1847, 1861—83. |
| 300. | Sholapur | 1853—83. |
| 263. | Kurrachee | 1856—83. |
| 269. | Deesa | |
| 291. | Goa | 1860—83. |
| 259. | Jacobabad | 1861—83. |
| 261. | Rohri | |
| 268. | Bhuj | |
| 273. | Kaira | |
| 277. | Rajkot | |
| 292. | Karwar | |
| 294. | Dhulia | |
| 295. | Malegaon | |
| 293. | Honawar | 1861—65, 1867—83. |
| 282. | Igatpuri | 1861—71, 1874—83. |
| 280. | Broach | 1862—83. |
| 284. | Byculla | |
| 290. | Vingurla | |
| 301. | Bijapur | |
| 304. | Gokak | |
| 306. | Nadgund | 1862—72, 1874—83. |
| 308. | Hubli | |
| 309. | Kaighatgi | |
| 289. | Baura | 1862, 1863, 1874—83. |
| 260. | Shikarpur | 1863—83. |
| 265. | Hyderabad | |
| 267. | Nagar Parker | |
| 281. | Surat | 1863—71, 1874—83. |
| 266. | Umarkot | 1865—83. |
| 262. | Sehwan | 1866—83. |
| 274. | Godhra | |
| 303. | Kaladgi | |
| 270. | Palanpur | 1866—68, 1871—83. |
| 271. | Edar | 1868—83. |
| 264. | Tatta | 1869—83. |
| 275. | Bariya | |
| 285. | Matheran | 1871—83. |
| 286. | Lanauli | 1874—83. |
| 310. | Mandargi | |
| 276. | Wadwan | 1875—83. |
| 278. | Manekwara | |
| 279. | Songad | |

## MYSORE AND COORG.

| Serial No. | | |
|---|---|---|
| 337. | Bangalore | 1835, 1837—83. |
| 332. | Shimoga | 1837—83. |
| 340. | Mysore | |
| 336. | Tumkur | 1837—60, 1870—83. |
| 339. | Mercara | 1863—88. |
| 333. | Chitaldroog | 1870—83. |
| 334. | Chikmagalur | |
| 338. | Kolar | |
| 335. | Hassan | 1871—83. |

## MADRAS.

| Serial No. | | |
|---|---|---|
| 371. | Madras | 1813—83. |
| 406. | Ootacamund | 1829—33, 1863—68, 1879—80. |
| 405. | Cochin | 1842—46, 1853—54, 1863—83. |
| 389. | Trichinopoly | 1842—48, 1853—54, 1861—83. |

*List of Stations for which the Rainfall Registers of past years are tabulated, &c.*—concluded.

MADRAS—*contd.*

| Serial No. | | |
|---|---|---|
| 394*b*. | Pasumali (Madura) | 1846—66, 1868—71, 1877—83. |
| 359. | Bellary | 1847—48, 1852—54, 1859—83. |
| 363. | Cuddapah | 1852—54, 1856—83. |
| 351. | Guntur | 1852—54, 1863—83. |
| 357. | Kurnool | 1852—54, 1863—83. |
| 382. | Salem | 1852—54, 1863—83. |
| 399. | Mangalore | 1853—83. |
| 379. | Cuddalore | 1853—54, 1863—83. |
| 391. | Coimbatore | 1853—54, 1863—83. |
| 394*a*. | Madura | 1853—54, 1863—83. |
| 403. | Calicut | 1853—54, 1863—83. |
| 400. | Cannanore | 1853—54, 1865—83. |
| 341*b*. | Aska (Sugar Works) | 1853—54, 1856—77, 1879—83. |
| 398. | Tinnevelly | 1854—55, 1863—83. |
| 348. | Rajahmundry | 1854, 1863—83. |
| 360. | Gooty | 1856—83. |
| 344. | Bimlipatam | 1860—83. |
| 341*a*. | Aska | 1863—83. |
| 342. | Ganjam | 1863—83. |
| 343. | Vizianagram | 1863—83. |
| 347. | Cocanada | 1863—83. |
| 349. | Ellore | 1863—83. |
| 350. | Masulipatam | 1863—83. |
| 356. | Nellore | 1863—83. |
| 367. | Chittoor | 1863—83. |
| 368. | Palmaner | 1863—83. |
| 369. | Vellore | 1863—83. |
| 370. | Arcot | 1863—83. |
| 372. | Conjeeveram | 1863—83. |
| 373. | Chingleput | 1863—83. |
| 374. | Tindivanam | 1863—83. |
| 377. | Atur | 1863—83. |

| Serial No. | | |
|---|---|---|
| 381. | Shevaroy Hills (Yercand) | 1863—83. |
| 384. | Kumbakonam | 1863—83. |
| 385. | Tranquebar | 1863—83. |
| 386. | Negapatam | 1863—83. |
| 387. | Tanjore | 1863—83. |
| 390. | Karur | 1863—83. |
| 392. | Dindigul | 1863—83. |
| 397. | Tuticorin | 1863—83. |
| 401. | Tellicherry | 1863—83. |
| 404. | Palghat | 1863—83. |
| 378. | Vriddhachalam | 1864—83. |
| 380. | Udayarpalaiyam | 1865—83. |
| 345. | Vizagapatam | 1866—83. |
| 402. | Manantoddy | 1868—83. |
| 346. | Narsapatnam | 1870—83. |
| 352. | Vinukonda | 1870—83. |
| 353. | Ongole | 1870—83. |
| 354. | Cumbum | 1870—83. |
| 355. | Udayagiri | 1870—83. |
| 358. | Adoni | 1870—83. |
| 361. | Nandyal | 1870—83. |
| 362. | Dharmavaram | 1870—83. |
| 364. | Madanapalle | 1870—83. |
| 365. | Chandragiri | 1870—83. |
| 375. | Hosur | 1870—83. |
| 376. | Tirupatur | 1870—83. |
| 383. | Kollegal | 1870—83. |
| 388. | Patukota | 1870—83. |
| 393. | Periyakulam | 1870—83. |
| 395. | Vattanum | 1870—83. |
| 396. | Satur | 1870—83. |
| 366. | Tada | 1870—81, 1883. |

CEYLON.

| Serial No. | | |
|---|---|---|
| 408. | Mannaar | 1870—83. |
| 409. | Trincomalee | 1870—83. |
| 410. | Batticaloa | 1870—83. |
| 411. | Hambantota | 1870—83. |
| 412. | Galle | 1870—83. |
| 413. | Colombo | 1870—83. |
| 414. | Puttalam | 1870—83. |
| 415. | Ratnapura | 1870—83. |
| 416. | Newera Eliya | 1870—83. |
| 417. | Kandy | 1870—83. |
| 418. | Anuradhapura | 1870—83. |
| 407. | Jaffna | 1871—83. |

BRITISH BURMA.

| Serial No. | | |
|---|---|---|
| 431. | Tavoy | 1848—52, 1861—83. |
| 432. | Mergui | 1848—51, 1868—83. |
| 419. | Akyab | 1849—52, 1860—83. |
| 430. | Moulmein | 1850—83. |
| 421. | Sandoway | 1860—64, 1866—83. |
| 420. | Kyaukpyu | 1866—83. |
| 429. | Shwegyin | 1869—83. |
| 422. | Thayetmyo | 1870—83. |
| 423. | Toungoo | 1870—83. |
| 424. | Prome | 1870—83. |
| 427. | Bassein | 1870—83. |
| 428. | Rangoon | 1870—83. |
| 426. | Henzada | 1871—83. |
| 425. | Myanaung | 1874—83. |

BAY ISLANDS.

| Serial No. | | |
|---|---|---|
| 433. | Port Blair | 1868—83. |
| 434. | Nancowry | 1873—83. |

In the above table, the stations are classed under the several administrative divisions to which they belong; but for the purpose of discussion, this grouping is inconvenient. Administrative divisions bear no definite relation to the physico-geographical conditions which determine the rainfall; and thus we have, in the Presidency of Bombay, such stations as Jacobabad with an annual average of less than 5 inches, and Matheran with upwards of 250 inches. Moreover, the principal administrative divisions are in most cases too extensive for useful generalization. In treating of such questions as the failure of the rains or excessive rain in certain seasons, we shall find that it has scarcely ever happened that the whole of a presidency has been disastrously or otherwise similarly affected in one and the same season; and while some means of generalizing are almost indispensable, it is obvious that any grouping in rainfall provinces should be such, that the whole group of stations may be regarded as subject to one set of conditions, without any great violation of the facts. It is desirable, also, that the provinces should be such as will admit of an average being taken of the rainfall of the stations included, without associating stations which differ very greatly in the normal amounts of their fall. In the subsequent discussion of the distribution of the rainfall in past years, I shall therefore adopt a classification which, while recognizing the administrative divisions as far as is compatible with other requirements, recognizes as its chief principle the similarity of those physical conditions on which the rainfall depends.

The rainfall provinces (as I shall term them) here enumerated, include by far the greater part of the country. But there is a considerable tract in the Peninsula of India, belonging to Native States, for the most part in the condition of unreclaimed forest and wilderness, for which rainfall registers were, until lately, entirely wanting. This is, of necessity, omitted from the discussion.

The areas of the rainfall provinces have been measured with the planimeter on a map published by the Surveyor-General of India.

*Stations classed in Rainfall Provinces.*

I.—WESTERN HIMALAYA—Area indefinite. 28 Stations.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 1. | Gilgit. | 11. | Kangra. | 50. | Srinagar. |
| 2. | Leh. | 12. | Hamirpur. | 51. | Pauri. |
| 3. | Mansahra. | 13. | Sultanpur. | 52. | Ranikhet. |
| 4. | Abbottabad. | 14. | Kilba. | 53. | Almora. |
| 5. | Murree. | 15. | Kotgarh. | 54. | Pithoragarh. |
| 6. | Dalhousie. | 16. | Simla. | 55. | Naini Tal. |
| 7. | Dharmsala. | 17. | Kasauli. | 56. | Haldwani. |
| 8. | Nurpur. | 47. | Chakrata. | 57. | Champawat. |
| 9. | Pathankot. | 48. | Mussooree. | | |
| 10. | Palampur. | 49. | Dehra Dun. | | |

II.—PUNJAB PLAINS—Area 120,000 square miles. 29 Stations.
Average rainfall, 21·5 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 18. | Peshawar. | 20. | Bannu. | 22. | Dera Ghazi Khan. |
| 19. | Kohat. | 21. | Dera Ismail Khan. | 23. | Muzaffargarh. |

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 24. | Mooltan. | 32. | Gujranwala. | 40. | Umballa. |
| 25. | Rawalpindi. | 33. | Gurdaspur. | 41. | Karnal. |
| 26. | Jhelum. | 34. | Lahore. | 42. | Sirsa. |
| 27. | Shahpur. | 35. | Amritsar. | 43. | Hissar. |
| 28. | Jhang. | 36. | Ferozepore. | 44. | Rohtak. |
| 29. | Montgomery. | 37. | Hoshiarpur. | 45. | Delhi. |
| 30. | Gujrat. | 38. | Jullundur. | 46. | Gurgaon. |
| 31. | Sialkot. | 39. | Ludhiana. | | |

III.—N. W. PROVINCES AND OUDH—Area 83,500 square miles. 45 Stations.
Average rainfall, 35·9 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 58. | Saháranpur. | 73. | Mainpuri. | 88. | Partabgarh. |
| 59. | Roorkee. | 74. | Muttra. | 89. | Cawnpore. |
| 60. | Muzaffarnagar. | 75. | Agra. | 90. | Fatehpur. |
| 61. | Bijnor. | 76. | Etawah. | 91. | Jalaun. |
| 62. | Meerut. | 77. | Kheri. | 92. | Hamirpur. |
| 63. | Bulandshahr. | 78. | Sitapur. | 93. | Banda. |
| 64. | Aligarh. | 79. | Hardoi. | 94. | Allahabad. |
| 65. | Rudarpur. | 80. | Bahraich. | 97. | Basti. |
| 66. | Pilibhit. | 81. | Gonda. | 98. | Gorakhpur. |
| 67. | Moradabad. | 82. | Fyzabad. | 99. | Azamgarh. |
| 68. | Bareilly. | 83. | Nawabganj. | 100. | Jaunpur. |
| 69. | Budaun. | 84. | Lucknow. | 101. | Ghazipur. |
| 70. | Shahjahanpur. | 85. | Unao. | 102. | Mirzapur. |
| 71. | Farrukhabad. | 86. | Sultanpur. | 103. | Benares. |
| 72. | Etah. | 87. | Rae Bareli. | 104. | Robertsganj. |

IV.—RAJPUTANA (*a. Eastern Division*)—Area 67,000 square miles. 18 Stations.
Average rainfall, 27·0 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 107. | Ulwur. | 113. | Beawar. | 121. | Jhalrapatam (Jhallawar). |
| 108. | Bhurtpore. | 114. | Tonk. | 122. | Oodeypore. |
| 109. | Jeypore. | 115. | Deoli. | 123. | Mount Abu. |
| 110. | Sambhar. | 116. | Shahpoora. | 124. | Kotra. |
| 111. | Ajmere. | 119. | Erinpura. | 125. | Kherwara. |
| 112. | Nusseerabad. | 120. | Kotah. | 126. | Banswara. |

(*b. Western Division*)—Area 65,000 square miles. 3 Stations.
Average rainfall,[1] 12·5 (?) inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 106. | Bickaneer. | 117. | Jodhpore. | 118. | Pachpadra. |

[1] This average, which can be accepted only as a rough approximation, is the mean of the three stations enumerated, and of Sirsa, Hissar, Rohri, and Umarkot around the borders of the province.

V.—CENTRAL INDIA STATES—Area 91,000 square miles. 21 Stations.
Average rainfall, 41·3 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 127. | Morâr. | 134. | Sirdarpore. | 137. | Nagode. |
| 128. | Goona. | 135. | Manpur. | 138. | Sutna. |
| 129. | Neemuch. | 95. | Jhansi. | 139. | Rewah. |
| 130. | Agar. | 96. | Lalitpur. | 228. | Jubbulpore. |
| 131. | Bhopal. | 136. | Nowgong. | 229. | Narsinghpur. |
| 132. | Rutlam. | 226. | Saugor. | 230. | Hoshangabad. |
| 133. | Indore. | 227. | Damoh. | 231. | Khandwa. |

VI.—BEHAR—Area 30,000 square miles. 14 Stations.
Average rainfall, 44·1 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 141. | Motiharee. | 146. | Arrah. | 151. | Gya. |
| 142. | Durbhunga. | 147. | Patna. | 152. | Jamooee. |
| 143. | Sewan. | 148. | Mozufferpore. | 153. | Muddehpoora. |
| 144. | Buxar. | 149. | Barh. | 154. | Monghyr. |
| 145 | Chupra. | 150. | Sasseram. | | |

VII.—WESTERN BENGAL—Area 38,000 square miles. 10 Stations.
Average rainfall, 49·6 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 157. | Bhagalpur. | 172. | Hazaribagh. | 176. | Chybassa. |
| 158. | Godda. | 173. | Ranchee. | 177. | Purulia. |
| 105. | Dudhi. | 174. | Nya Doomka. | | |
| 171. | Palamow. | 175. | Gobindpur. | | |

VIII.—LOWER BENGAL—Area 54,000 square miles. 28 Stations.
Average rainfall, 67·2 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 155. | Kissengunge. | 180. | Burdwan. | 190. | Khoolna. |
| 156. | Purneah. | 181. | Hooghly. | 191. | Burrisal. |
| 165. | Rungpore. | 182. | Howrah. | 192. | Calcutta. |
| 166. | Dinagepore. | 183. | Midnapore. | 193. | Saugor Island. |
| 167. | Maldah. | 184. | Tumlook. | 194. | Mymensingh. |
| 168. | Bogra. | 185. | Berhampore. | 195. | Kishoreganj. |
| 169. | Rampore Baulcah. | 186. | Kishnaghur. | 196. | Atia. |
| 170. | Pubna. | 187. | Fureedpore. | 197. | Dacca. |
| 178. | Soory. | 188. | Jessore. | | |
| 179. | Bankoora. | 189. | Busseerhat. | | |

IX.—EASTERN HIMALAYA—Area indefinite. 7 Stations.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 140. | Katmandu. | 161. | Mongpoo. | 163. | Jalpaiguri. |
| 159. | Darjeeling. | 162. | Baxa. | 164. | Cooch Behar. |
| 160. | Kurseong. | | | | |

X.—ASSAM AND EASTERN BENGAL—Area 61,000 square miles. 18 Stations.
Average rainfall, 102·1 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 211. | Dibrugarh. | 217. | Goalpara. | 223. | Kohima. |
| 212. | Sibsagar. | 218. | Dhubri. | 224. | Silchar. |
| 213. | Nazira. | 219. | Tura. | 225. | Sylhet. |
| 214. | Tezpur. | 220. | Shillong. | 198. | Comillah. |
| 215. | Nowgong. | 221. | Cherra Poonjee (½). | 199. | Agartalla. |
| 216. | Gauhati. | 222. | Samagoodting. | 200. | Noakholly. |

XI.—ORISSA AND NORTHERN CIRCARS—Area 27,000 square miles. 16 Stations.
Average rainfall, 47·8 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 205. | Jellasore. | 341. | Aska. | 347. | Cocanada. |
| 206. | Balasore. | 342. | Ganjam. | 348. | Rajahmundry. |
| 207. | Bhuddruck. | 343. | Vizianagrum. | 349. | Ellore. |
| 208. | Cuttack. | 344. | Bimlipatam. | 350. | Masulipatam. |
| 209. | False Point. | 345. | Vizagapatam. | | |
| 210. | Pooree. | 346. | Narsapatnam. | | |

XII.—CENTRAL PROVINCES, SOUTH—Area 61,000 square miles. 19 Stations.
Average rainfall, 50·0 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 232. | Pachmarhi. | 239. | Saragaon. | 246. | Wardha. |
| 233. | Badnur (Betul). | 240. | Sambalpur. | 247. | Hinganghat. |
| 234. | Chhindwara. | 241. | Raipur. | 248. | Brahmapuri. |
| 235. | Seoni. | 242. | Dhamtari. | 249. | Chanda. |
| 236. | Mandla. | 243. | Bhandara. | 250. | Sironcha. |
| 237. | Burha (Balagirat). | 244. | Nagpur. | | |
| 238. | Bilaspur. | 245. | Arvi. | | |

XIII.—BERAR AND KHANDESH—Area 43,000 square miles. 13 Stations.
Average rainfall, 34·7 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 251. | Chikalda. | 256. | Yeotmal. | 296. | Nasik. |
| 252. | Ellichpur. | 257. | Basim. | 311. | Aurangabad. |
| 253. | Amraoti. | 258. | Wun. | 312. | Hingoli. |
| 254. | Akola. | 294. | Dhulia. | | |
| 255. | Buldana. | 295. | Malegaon. | | |

XIV.—GUZERAT—Area 54,500 square miles. 13 Stations.
Average rainfall, 32·9 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 269. | Deesa. | 274. | Godhra. | 279. | Songad. |
| 270. | Palanpur. | 275. | Bariya. | 280. | Broach. |
| 271. | Edar. | 276. | Wadhwan. | 284. | Surat. |
| 272. | Ahmedabad. | 277. | Rajkot. | | |
| 273. | Kaira. | 278. | Manwara. | | |

XV.—SIND AND CUTCH—Area 68,000 square miles. 10 Stations.
Average rainfall, 8·8 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 259. | Jacobabad. | 263. | Kurrachee. | 267. | Nagar Parker. |
| 260. | Shikarpur. | 264. | Tatta. | 268. | Bhuj. |
| 261. | Rohri. | 265. | Hyderabad. | | |
| 262. | Sehwan. | 266. | Umárkot. | | |

XVI.—NORTH DECCAN—Area 48,000 square miles. 14 Stations.
Average rainfall, 29·3 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 297. | Ahmednagar. | 302. | Kolhapur. | 307. | Dharwar. |
| 298. | Poona. | 303. | Kaladgi. | 308. | Hubli. |
| 299. | Satara. | 304. | Gokak. | 309. | Kalghatgi. |
| 300. | Sholapur. | 305. | Belgaum. | 310. | Mandargi. |
| 301. | Bijapur. | 306. | Nadgund. | | |

XVII.—KONKAN AND GHATS—Area 16,000 square miles. 12 Stations.
Average rainfall, 143·8 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 282. | Igatpuri. | 286. | Lanauli. | 290. | Vingurla. |
| 283. | Tanna. | 287. | Mahableshwar. | 291. | Goa. |
| 284. | Bombay. | 288. | Ratnagiri. | 292. | Karwar. |
| 285. | Matheran. | 289. | Baura. | 293. | Honawar. |

XVIII.—MALABAR AND GHATS—Area 18,000 square miles. 8 Stations.
Average rainfall, 114·9 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 399. | Mangalore. | 401. | Tellicherry. | 404. | Palghat. |
| 339. | Mercara. | 402. | Manantoddy. | 405. | Cochin. |
| 400. | Cannanore. | 403. | Calicut. | | |

XIX.—HYDERABAD—Area 74,000 square miles. 19 Stations.
Average rainfall, 30·8 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 313. | Parbhani. | 320. | Naldurg. | 327. | Khamam. |
| 314. | Bheer. | 321. | Bidar. | 328. | Shorapur. |
| 315. | Nandair. | 322. | Gulbarga. | 329. | Nagar Karnul. |
| 316. | Indur. | 323. | Bolarum. | 330. | Lingsugur. |
| 317. | Yelgandal. | 324. | Secunderabad. | 331. | Raichur. |
| 318. | Medak. | 325. | Hyderabad. | | |
| 319. | Ibrahimpatan. | 326. | Nalgonda. | | |

XX.—MYSORE AND BELLARY—Area 58,000 square miles. 18 Stations.
Average rainfall, 29·5 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 357. | Kurnool. | 360. | Gooty. | 363. | Cuddapah. |
| 358. | Adoni. | 361. | Nandyal. | 364. | Madanapalle. |
| 359. | Bellary. | 362. | Dharmavaram. | 332. | Shimoga. |

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 333. | Chitaldroog. | 336. | Tumkur. | 375. | Hosur. |
| 334. | Chikmagalur. | 337. | Bangalore. | 340. | Mysore. |
| 335. | Hassan. | 338. | Kolar. | 383. | Kollegal. |

XXI.—CARNATIC—Area 72,000 square miles. 38 Stations.
Average rainfall, 34·9 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 351. | Guntur. | 372. | Conjeeveram. | 387. | Tanjore. |
| 352. | Vinukonda. | 373. | Chingleput. | 388. | Patukota. |
| 353. | Ongole. | 374 | Tindivanam. | 389. | Trichinopoly. |
| 354. | Cumbum. | 376. | Tirupatur. | 390. | Karur. |
| 355. | Udayagiri. | 377. | Atur. | 391. | Coimbatore. |
| 356. | Nellore. | 378. | Vriddhachalam. | 392. | Dindigul. |
| 365. | Chandragiri. | 379. | Cuddalore. | 393. | Periyakulam. |
| 366. | Tada. | 380. | Udayarpalaiyam. | 394. | Madura. |
| 367. | Chittoor. | 381. | Shevaroy Hills. | 395. | Vattanum. |
| 368. | Palmaner. | 382. | Salem. | 396. | Satur. |
| 369. | Vellore. | 384. | Kumbakonam. | 397. | Tuticorin. |
| 370. | Arcot. | 385. | Tranquebar. | 398. | Tinnevelly. |
| 371. | Madras. | 386. | Negapatam. | | |

XXII.—ARAKAN—Area indefinite. 7 Stations.
Average rainfall, 149·0 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 201. | Demagri. | 204. | Cox's Bazar. | 421. | Sandoway. |
| 202. | Rangamatia Hill. | 419. | Akyab. | | |
| 203. | Chittagong. | 420. | Kyaukpyu. | | |

XXIII.—PEGU—Area 32,500 square miles. 7 Stations.
Average rainfall, 73·0 inches.

| Serial No. | | Serial No. | | Serial No. | |
|---|---|---|---|---|---|
| 422. | Thayetmyo. | 425. | Myanaung. | 428. | Rangoon. |
| 423. | Toungoo. | 426. | Henzada. | | |
| 424. | Prome. | 427. | Bassein. | | |

XXIV.—TENASSERIM—Area indefinite. 4 Stations.
Average rainfall, 172·0 inches.

| Serial No. | | Serial No. | |
|---|---|---|---|
| 429. | Shwegyin. | 431. | Mergui. |
| 430. | Moulmein. | 432. | Tavoy. |

XXV.—BAY ISLANDS—Area indefinite. 2 Stations.

| Serial No. | | Serial No. | |
|---|---|---|---|
| 433. | Port Blair. | 434. | Nancowry. |

It appears from a summation of the above data that, (including the province of Assam, but excluding the Himalaya, the Burmese peninsula, and also an area of about 150,000 square miles in the north-east of the peninsula, for which, until recently, rainfall registers were wanting,) the annual average rainfall of India is 39·3 inches. The rainfall of this unrepresented area may, however, be estimated with approximate accuracy as 49·1 inches, (the mean of the three provinces surrounding it, and much of which it resembles in its geographical features). Including this, the average rainfall of India becomes

40·7 inches, or 1,034 millemeters.

This result I have tested by a different method, which is, perhaps, more trustworthy. A copy of the large rainfall chart of India, on the scale of 64 miles to the inch, (lately published), was cut into 25 sections, for the most part following the boundary lines of the rainfall increments. Each fragment was then weighed in a delicate chemical balance, and its area computed from the weight by comparison with that of a standard area of the chart. The average rainfall of each was then computed from that of all the stations included in it, amounting to about 1,000 for the whole area, and the sum of the several products of areas and their respective rainfall, divided by the sum of the areas, gave exactly

42 inches, or 1,067 millemeters,

which is adopted as the average rainfall of India within the above defined limits.

The average of Pegu, omitting the Arakan Yoma and the adjacent coast, is about 73 inches; that of the coast tracts of Chittagong, Arakan, and Tenasserim varies from 100 to upwards of 200 inches, as far as is shown by existing registers, nearly all of which are those of stations on and near the coast line. As the rainfall of these stations can scarcely be accepted as representing the average of the whole provinces, I omit any estimate of the represented areas. For the same reason I omit the area of the Bay Islands.

The average rainfall of India as a whole, as above estimated, does not differ very much from the general average of the tropical zone; but within the limits of India Proper and Assam, the extreme variations are such as are without parallel in any other country in the world.[1] On the one hand, we have the station of Cherra Poonjee, with a fall of from 500 to 600 inches, and on the other, Jacobabad, with an annual average of less than 5 inches, and a minimum of less than one inch; and in the case of individual stations and even rainfall provinces, the variations from year to year are considerable, and, as we shall see subsequently, relatively greater where the fall is small than where it is heavier.

On the mean of the whole represented area of India, the extreme difference of the driest and wettest years, comprehended in our registers, amounts to 13 inches on the general average of 42 inches, or 31 per cent. of the mean fall; ranging about equally (15 per cent.) in excess and (16 per cent.) in defect of the normal average. Into the question of these variations, so all-important in their influence on the prosperity of India, I shall enter at some length in the second part of this memoir; but, before doing so, it will be necessary to take a general survey of the normal or average distribution of the rainfall, and the meteorological conditions on which it depends, under the twofold aspect of their seasonal and geographical relations.

[1] In a recent lecture on Physiography, delivered at the Institute of Civil Engineers, Mr. J. Evans, V.P.R.S., claims that the variation of the Indian rainfall may be equalled, if not surpassed, by those of the British Isles. But this would hardly be true even of inter-tropical India, much less of northern or extra-tropical India, as the statement in the text shows.

## PART I.—THE NORMAL OR AVERAGE RAINFALL.

Over the greater part of India, the season of heavy rainfall is restricted to the later summer and autumn, the season emphatically designated as that of 'the rains,' and the more prominent and striking features of the distribution of the annual rainfall, as shown on the chart, Plate II, are determined by the relative copiousness of the precipitation of this season. But to this general rule there are more than one exception; in point of fact, there is no season of the year, which is not characterized by rain in one or another part of the Indian area. As the sun ascends and then retreats in declination, and as the thermal focus of the land travels from south to north and then again is transferred to the southern extremity of the peninsula, so also does the seat of the heaviest rainfall travel from place to place; and the meteorology of the world presents no more instructive chapter than is displayed in the concomitant changes of temperature, pressure, wind movement and rainfall, that mark the different seasons of the Indian year.

For the convenient treatment of the subject, I shall therefore describe the annual progress and distribution of the rainfall, under the following sections:—

*1st*—The rainfall of the summer monsoon;
*2nd*—The autumn rains of the Carnatic and Ceylon;
*3rd*—The winter rains of Northern India;
*4th*—The spring storm rainfall;

and in each case I shall notice briefly certain other meteorological conditions which are characteristic of the season, and which, indeed, are the determining causes of the rain.

### THE SUMMER MONSOON RAINS.

The rain of this season is heaviest on the coasts and hill ranges which receive the first onset of the warm and vapour-laden winds of the summer monsoon, and decreases thence, on the one hand, to the plains of the Punjab and Sind, which at this time of year are the seat of a persistent barometric depression, constituting their permanent goal and the centre of their aspiration; and, on the other, to the south-eastern extremity of the peninsula, which, owing to causes afterwards to be described, is at this season almost rainless. Beyond the general fact that the summer monsoon originates over the ocean which stretches away to the south and west of India, and that its vapour-burden is the tribute collected from the evaporating surface of these warm seas, very little is at present known respecting the cradle and earlier course of this wind current. It is generally considered, that it is, in part, the continuation across the equator of the south-east trades; but there are some reasons for believing that any connection of the southern trades

with the Indian monsoon is at least fitful and partial, and there can be little or no question that the Northern Indian Ocean presents an expanse of evaporating surface which, supplemented by that of the Bay of Bengal, and that of India itself, is sufficient to supply all the rain that falls annually on the plains and mountains of India:[1] I shall return to this subject after completing the detailed description of the summer rainfall.

The wind charts of the North Indian Ocean, drawn up from the data collected by Maury and published by the London Board of Trade, show that, on the Arabian Sea, the prevailing direction of the summer monsoon is almost due west; and that off the Travancore coast and Ceylon, there is a preponderance of north-west over south-west winds, giving evidence of a tendency to a cyclonic circulation around the Indian peninsula. These directions are, however, somewhat modified on the coast line itself. The monsoon impinges on the west coast of the Indian peninsula, from an average direction about west-south-west; being more westerly at Kurrachee on the one hand, and on the Malabar coast on the other, than in the intermediate Northern Konkan. This is illustrated by the following table of the winds at Kurrachee, Surat, Bombay, Ratnagiri, Goa, and Cochin, during the four months June to September. The figures represent percentages of the total observations:—

*Percentage of wind directions on the west coast of India during the summer monsoon (June to September).*

| Stations. | Years. | N. | N.-E. | E. | S.-E. | S. | S.-W. | W. | N.-W. | Calms. |
|---|---|---|---|---|---|---|---|---|---|---|
| Kurrachee . . . . | 17 | 2 | 1 | ... | .. | 3 | 23 | 49 | 22 | 1 |
| Surat . . . . . | 7 | 1 | 1 | 1 | 1 | 10 | 59 | 17 | 7 | 3 |
| Bombay . . . . | 17 | 1 | 1 | 1 | 5 | 4 | 42 | 32 | 14 | ... |
| Ratnagiri . . . . | 7 | 4 | ... | ... | 1 | 15 | 39 | 26 | 13 | 2 |
| Goa . . . . . | 17 | 1 | 1 | 2 | 4 | 2 | 10 | 5 | 20 | 7 |
| Cochin . . . . . | 9 | 4 | 2 | 3 | 4 | 11 | 25 | 25 | 25 | ... |

After surmounting the Western Ghâts or Sahyadri Range, which presents an almost uninterrupted barrier, from 2,000 feet to 7,000 feet in height, from the mouth of the Tapti to Cape Comorin, this current sweeps across the peninsula on a course which averages west by south, and in the northern part of the Deccan and Berar, is even somewhat northerly; but

[1] The following rough calculation will serve to verify this statement. Excluding Lower Bengal and Assam, which receive the whole or nearly the whole of their rainfall from the Bay of Bengal, the area of India may be taken at 1,184,000 square miles, and that of the North Indian Ocean, as bounded by the equator, the meridian of Ceylon and its coast lines as 3,000,000 square statute miles in round figures. Now, the average annual rainfall on the above area of India is 36 inches (the difference of this and the average of 42 inches given in the text on page 15 being due to exclusion of the highly humid provinces of Lower Bengal and Assam). At page 198 of the *Indian Meteorologist's Vade Mecum* $\frac{1}{10}$ inch per day is deduced from the data there quoted as a perhaps liberal estimate of the evaporation on Indian Seas. Now taking only two-thirds of this amount, we have for the annual evaporation of the North Indian Ocean, as above defined, an average of 24 inches a year, capable therefore of feeding a rainfall of 36 inches over 2,000,000 of square miles. This estimate, be it observed, takes no account of the fact that nearly the whole rainfall of the Carnatic, a considerable portion of that of the Gangetic Provinces and Western Bengal, and a small amount of that of Central India and the Central Provinces north of the Satpuras, is brought by easterly winds from the Bay of Bengal, nor is any allowance made for local evaporation, which is certainly a very important element, but one the relative value of which it is difficult to estimate. If these be allowed for, the excess of the evaporation from the Ocean area would probably suffice for the actual rainfall over the sea, and for so much of the Ceylon rainfall as is derived from the Arabian Sea.

on reaching the opposite coast, it coalesces with the winds of the Bay of Bengal and becomes south-westerly. During the height of the monsoon, it frequently prevails over the whole region south of the Ganges, and occasionally penetrates to Bengal and the Gangetic plain. The following tables of the percentage frequency of different winds at this season, at several stations in the peninsula, serve to illustrate the course and prevalence of this current. Bangalore, Belgaum, Bellary, Secunderabad, Sholapur, and Poona are situated on the high plateau (1,500 to 3,000 feet) of the interior of the peninsula: Akola, Nagpur, Chanda, and Sironcha in the less elevated drainage systems of the Tapti and Godavari rivers (400 feet to 1,000 feet): Trichinopoly and Cuttack on the alluvial plain that borders the greater part of the east coast; the one in the south, the other in the north-east of the peninsula. Chikalda (3,600 feet) and Seoni (2,600 feet) are on the Satpura range; the latter, especially, being a well-exposed station, admirably fitted for showing the wind direction.

*Percentage of wind directions at stations in the interior of the Indian peninsula during the summer monsoon.*

| Stations. | Years. | N. | N.-E. | E. | S.-E. | S. | S.-W. | W. | N.-W. | Calms. |
|---|---|---|---|---|---|---|---|---|---|---|
| Bangalore | 9 | ... | ... | ... | 1 | 1 | 35 | 60 | 3 | ... |
| Belgaum | 17 | ... | 1 | ... | ... | 1 | 31 | 62 | 2 | 2 |
| Bellary | 9 | 1 | ... | ... | 1 | 1 | 12 | 58 | 27 | ... |
| Secunderabad | 9 | ... | ... | 1 | 1 | 2 | 29 | 48 | 19 | ... |
| Sholapur | 7 | 4 | 2 | ... | 1 | 1 | 25 | 38 | 27 | 2 |
| Poona | 17 | 4 | 1 | ... | 1 | 2 | 29 | 46 | 16 | ... |
| Akola | 11 | 2 | 1 | ... | 1 | ... | 10 | 43 | 32 | 10 |
| Nagpur | 15 | 10 | 4 | ... | 2 | 5 | 15 | 30 | 25 | 7 |
| Chanda | 14 | 13 | 2 | 3 | 2 | 5 | 15 | 41 | 13 | 6 |
| Sironcha | 8 | 6 | 3 | 2 | 6 | 7 | 23 | 35 | 17 | 1 |
| Trichinopoly | 9 | 1 | ... | ... | 1 | 3 | 15 | 52 | 27 | ... |
| Cuttack | 16 | 3 | 5 | 5 | 7 | 19 | 27 | 15 | 6 | 14 |
| Chikalda | 8 | 30 | 4 | ... | 2 | 3 | 6 | 17 | 35 | 3 |
| Seoni | 15 | 3 | 9 | 1 | 6 | 2 | 38 | 5 | 34 | 1 |

In Cutch, Sind and Western Rajputana, there is no obstructing mountain range, and a strong westerly current sweeps across Lower Sind, Cutch and Kathiawar to Guzerat, where it is partially diverted to the north-east by the Aravalli chain, separating this latter province from the Malwa plateau. A portion of the air stream is also diverted to north-east, up the Indus valley and across the desert plains of Western Rajputana, tending to circulate cyclonically around the seat of barometric minimum in Upper Sind and the South-Western Punjab. But a great, probably the major, portion of the current preserves its eastward course up the narrow valley of the Nerbudda, or, after surmounting the Aravalis,

across the plateau of Eastern Rajputana and Central India, sometimes even to the high lands of Chutia Nagpur and the confines of the Gangetic plain. The following wind tables illustrate these features of the current. Bhuj and Rajkot, together with Kurrachee (given on page 17), show the course of the main current across Lower Sind, Cutch, and Kathiawar: Hyderabad, Pachpadra, Deesa, Mount Abu, and Ajmere, the diversion to the north, caused partly by the barometric minimum of Upper Sind and the Punjab, partly by the Aravali range: Indore, Jubbulpore, Jhansi, Sutna, and Hazaribagh, the course of the residual current, either up the Nerbudda valley or across the Central India plateau and its extension in Chutia Nagpur.

*Percentage of wind directions at stations in Extra-tropical Western and Central India during the summer monsoon.*

| Stations. | Years. | N. | N.-E. | E. | S.-E. | S. | S.-W. | W. | N.-W. | Calms. |
|---|---|---|---|---|---|---|---|---|---|---|
| Bhuj | 7 | 1 | 1 | 1 | 1 | 3 | 26 | 54 | 11 | 2 |
| Rajkot | 7 | 2 | 2 | 1 | 1 | 7 | 22 | 50 | 15 | 1 |
| Hyderabad | 7 | 3 | 2 | 1 | 1 | 19 | 64 | 6 | 1 | 3 |
| Pachpadra | 4 | 1 | 3 | 1 | 4 | 12 | 62 | 7 | 3 | 7 |
| Deesa | 17 | 2 | 1 | 1 | 4 | 15 | 49 | 8 | 3 | 16 |
| Mount Abu | 6 | 4 | 6 | 2 | 4 | 12 | 52 | 15 | 2 | 3 |
| Ajmere | 18 | 1 | 9 | 1 | 3 | 2 | 38 | 32 | 8 | 6 |
| Indore | 7 | 5 | 1 | ... | 1 | 4 | 20 | 47 | 18 | 4 |
| Jubbulpore | 15 | 7 | 4 | 3 | 3 | 8 | 10 | 40 | 21 | 4 |
| Jhansi | 17 | 4 | 18 | 8 | 7 | 4 | 30 | 14 | 11 | 4 |
| Sutna | 8 | 7 | 10 | 8 | 3 | 4 | 11 | 32 | 21 | 4 |
| Hazaribagh | 16 | 5 | 9 | 15 | 18 | 11 | 11 | 14 | 15 | 2 |

In the above table, the last three stations, Jhansi, Sutna, and Hazaribagh, afford evidence of a preponderance, indeed, of westerly winds, but also of a considerable intermixture of those from the east. In fact, these stations are within the debatable ground of the western and eastern branches of the monsoon, and receive rain from both quarters. As will presently be shown, they lie near the axis of the barometric trough, which runs obliquely across Northern India, and is the chief seat of the convective ascent of the atmospheric influx from the opposite coasts.

On the Bay of Bengal, the general direction of the wind is from south-west, (more southerly therefore than on the Arabian Sea); but in the north-east of the Bay, where it meets the coast of Arakan, the current, or rather perhaps its lower stratum, is diverted by the mountain range of the Arakan Yoma and rendered more southerly and even somewhat easterly; and over the Gangetic delta, it blows, chiefly, as a south or a south-east wind, curving round towards the west, until it becomes the characteristic easterly wind of

Western Bengal, the Gangetic plain, and the southern face of the Himalaya. In illustration of this I give the wind tables of the following stations:—

*Percentage of wind directions in the summer monsoon.*

A.—THE BAY OF BENGAL.

| Stations. | Years. | N. | N.-E. | E. | S.-E. | S. | S.-W. | W. | N.-W. | Calms. |
|---|---|---|---|---|---|---|---|---|---|---|
| Madras | 16 | 1 | 1 | 5 | 12 | 18 | 34 | 24 | 5 | ... |
| Vizagapatam | 14 | 1 | 1 | 4 | 8 | 12 | 19 | 47 | 8 | ... |
| False Point | 16 | 2 | 4 | 4 | 9 | 11 | 37 | 21 | 6 | 6 |
| Nancowry (Nicobars) | 9 | ... | 1 | ... | 1 | 10 | 73 | 14 | 1 | ... |
| Port Blair (Andamans) | 16 | ... | 1 | 1 | 8 | 5 | 74 | 9 | 2 | ... |
| Akyab | 16 | 2 | 3 | 9 | 21 | 36 | 19 | 6 | 3 | 1 |
| Chittagong | 16 | 2 | 6 | 19 | 31 | 19 | 13 | 5 | 1 | 4 |
| Saugor Island | 16 | 2 | 4 | 6 | 12 | 32 | 31 | 9 | 3 | ... |
| B.—GANGETIC DELTA. | | | | | | | | | | |
| Calcutta | 27 | 3 | 5 | 10 | 17 | 41 | 14 | 5 | 2 | 1 |
| Berhampore | 16 | 2 | 9 | 20 | 23 | 19 | 14 | 3 | 2 | 6 |
| Jessore | 16 | 1 | 3 | 9 | 34 | 33 | 10 | 5 | 2 | 4 |
| Dacca | 16 | 1 | 2 | 6 | 30 | 43 | 10 | 1 | 1 | 6 |
| C.—GANGETIC PLAIN. | | | | | | | | | | |
| Purneah | 8 | 2 | 9 | 51 | 14 | 5 | 5 | 7 | 3 | 5 |
| Patna | 16 | 4 | 12 | 39 | 12 | 3 | 5 | 9 | 6 | 11 |
| Benares | 19 | 4 | 10 | 23 | 7 | 5 | 12 | 22 | 7 | 10 |
| Gorakhpur | 15 | 1 | 10 | 30 | 31 | 2 | 6 | 10 | 7 | 4 |
| Allahabad | 14 | 6 | 13 | 19 | 4 | 3 | 12 | 14 | 8 | 22 |
| Lucknow | 14 | 8 | 11 | 19 | 13 | 7 | 10 | 13 | 10 | 9 |
| Bareilly | 15 | 3 | 9 | 16 | 24 | 4 | 7 | 8 | 15 | 15 |
| Roorkee | 19 | 2 | 3 | 5 | 31 | 5 | 7 | 5 | 13 | 30 |

It will be observed that the last series, in which the stations on the Gangetic plain are enumerated in the order of their succession from east to west, shows a gradual decrease of easterly winds, and an increase of those from west and north-west, in receding from Bengal and approaching the Punjab. Respecting these latter winds, I shall have much to say in the sequel. As a general rule, they are dry and not rain-bearing winds, and they are most prevalent during 'breaks in the rains,' *viz.*, intervals of fine and comparatively dry weather, during which the sea wind, the true summer monsoon, is temporarily enfeebled and fails to penetrate to the Upper Provinces. The north-west winds, in the wind tables of Ajmere, Indore, Jhansi, &c., enumerated on the previous page, are of the same character.

Lastly, in the Punjab, the two currents from the Arabian sea and the Bay of Bengal coalesce, and tend to form a cyclonic whirl around the barometric minimum which is more or less persistent at this season in North-Western India; only shifting its place, from time to time, between the Punjab, Upper Sind, and the northern part of the Bickaneer desert. The wind tables of the following stations in the Punjab, Western Rajputana, and Upper Sind illustrate the diversified, and, at some stations, variable and unstable character of the winds in this tract.

*Percentage of wind directions at stations in North-Western India during the summer monsoon.*

| Stations. | Years. | N. | N.-E. | E. | S.-E. | S. | S.-W. | W. | N.-W. | Calms. |
|---|---|---|---|---|---|---|---|---|---|---|
| Bickaneer . . . . | 6 | 5 | 6 | 4 | 3 | 12 | 47 | 11 | 7 | 6 |
| Delhi . . . . . | 9 | 6 | 12 | 5 | 24 | 3 | 14 | 9 | 25 | 2 |
| Sirsa . . . . . | 8 | 5 | 4 | 14 | 12 | 7 | 11 | 28 | 7 | 12 |
| Ludhiana . . . . | 12 | 5 | 6 | 5 | 22 | 5 | 3 | 8 | 17 | 29 |
| Lahore . . . . . | 14 | 5 | 11 | 26 | 10 | 2 | 8 | 14 | 6 | 18 |
| Rawalpindi . . . . | 15 | 4 | 9 | 19 | 19 | 6 | 9 | 13 | 5 | 16 |
| Dera Ismail Khan . . . | 16 | 2 | 31 | 13 | 29 | 6 | 7 | ... | 3 | 9 |
| Mooltan . . . . | 14 | 3 | 16 | 1 | 11 | 10 | 39 | 2 | 6 | 12 |
| Jacobabad . . . . | 7 | 4 | 5 | 18 | 34 | 16 | 6 | 5 | 5 | 8 |

From the above description it is evident that, as regards India Proper, the two branches of the rain-bearing monsoon play very unequal parts; and it is important to notice, with reference to the variation of the rainfall in different years, that their relative prevalence and strength is subject to considerable variations, the one being sometimes stronger and more persistent than usual, while the other is comparatively weak.

The preponderance of the western branch of the monsoon is shown not only by its greater steadiness, but also by its greater average movement where it meets the coast line, and by the greater extent of the coast line across which it blows; since it prevails from Cape Comorin to Kurrachee, a distance of 1,500 miles; over the greater part of which, it impinges on the coast almost at right angles; whereas that portion of the eastern branch which enters India, prevails over scarcely 900 miles, *viz.*, from the mouth of the Kistna to that of the Megna, and excepting on the sea face of the Gangetic delta, meets the coast at a very acute angle, and indeed, on an average, is directed rather off than on the shore. The comparative velocities of the two currents are shown by the following anemometric results (the mean of the four months, June to September), all of which are those of stations on the coast line:—

*Mean daily movement of the two branches of the summer monsoon at coast stations.*

| | | | | | |
|---|---|---|---|---|---|
| Western Branch. | Stations | Bombay. | Surat. | Kurrachee. | |
| | Years | 14 | 6 | 7 | |
| | Miles, daily | 381 | 323 | 411 | |
| Eastern Branch. | Stations | Vizagapatam. | False Point. | Saugor Island. | Chittagong. |
| | Years | 12 | 5 | 13 | 15 |
| | Miles, daily | 83 | 223 | 286 | 149 |

and the mean direction of the wind and local trend of the coast line indicating the greater or less obliquity of the former to the latter is shown by the following table :—

*Relative direction of the summer monsoon winds and the coast lines at different stations.*

| | Stations | Cochin. | Goa. | Bombay. | Surat. | Kurrachee. |
|---|---|---|---|---|---|---|
| WESTERN BRANCH | Years | 9 | 17 | 17 | 7 | 17 |
| | Wind resultant | S. 81° W. | N. 87° W. | S. 68° W. | S. 53° W. | S. 89° W. |
| | Trend of coast | N. 15° W. | N. 25° W. | S. 10° E. | S. 20° E. | N. 60° W. |
| | Included angle | 84° | 62° | 78° | 73° | 31° |
| | Sine of ditto | 0·9945 | 0·8829 | 0·9781 | 0·9563 | 0·5150 |

| | Stations | Vizagapatam. | False Point. | Saugor Island. | Chittagong. |
|---|---|---|---|---|---|
| EASTERN BRANCH | Years | 14 | 16 | 16 | 16 |
| | Wind resultant | S 67° W. | S. 53° W. | S. 16° W. | S. 35° E. |
| | Trend of coast | S. 60° W. | S. 40° W.[1] | W. | S. 15° E. |
| | Included angle | —7° | —13° | 74° | —20° |
| | Sine of ditto | —0·1219 | —0·2250 | 0·9613 | —0·3420 |

In further illustration of this subject, the average wind movement at certain inland stations may be given. For the westerly branch, I take the stations Bangalore, Belgaum, Poona, Sholapur, Nagpur and Deesa, and for the easterly Calcutta, Dacca, Hazaribagh, Purneah and Benares.

| | Stations | Bangalore. | Belgaum. | Poona. | Sholapur. | Nagpur. | Deesa. |
|---|---|---|---|---|---|---|---|
| WESTERN BRANCH | Resultant direction | S. 74° W. | S. 79° W. | S. 85° W. | N. 86° W. | N. 75° W. | S. 45° W. |
| | Miles, daily | 181 | 171 | 356 | 169 | 145 | 312 |

| | Stations | Calcutta. | Dacca. | Hazaribagh. | Purneah. | Benares. |
|---|---|---|---|---|---|---|
| EASTERN BRANCH | Resultant direction | S. 12° E. | S. 16° E. | S. 10° E. | S. 82° E. | S. 14° E. |
| | Miles, daily | 128 | 154 | 190 | 71 | 106 |

To the proper understanding of the course of the winds, as above described, it is necessary to add a brief notice of the normal distribution of atmospheric pressure during the period of their prevalence. The winds of Northern India, and the causes affecting them, have already been treated of, at length, in a special paper, published in the 164th volume of the Philosophical Transactions, and subsequent experience has not shown any reason for materially modifying the views therein set forth. At the time of writing that paper, the facts of the distribution of pressure were, however, but imperfectly known; more especially as regards the Punjab and Western and Southern India. The more complete knowledge which we now possess, has been acquired from the systematic observation of the last nine years. Plates IV and V exhibit the isobaric charts of the four months, June to September, drawn up from these data, the barometric pressures being corrected to the common gravitation constant of latitude 45°.

The seat of the principal barometric minimum, throughout the monsoon season, is that already referred to in the Punjab, Upper Sind, or the adjacent region of North-Western India. From this, a trough of low pressure runs down to the south-east, widening out in the north-east corner of the peninsula; in such manner as to give all the isobars,

[1] The mean of the directions north and south of the point. The negative sign of the included angle indicates that the wind is off shore.

which run across the peninsula, a strong twist to the south-east or even a more southerly quarter. This explains the frequency of northerly and north-westerly winds of the peninsula, exemplified in the wind tables on page 18, (*e. g.*, Bellary, Sholapur, Akola, and Nagpur), and to which, in the case of Dodabetta, the highest summit of the Nilgiris, attention was drawn, many years since, by Colonel Sykes. In the absence of information on the barometric features of India during the summer monsoon, and in consequence of the popular and misleading conception of this monsoon as a south-west wind, on land as well as at sea, this observation of Colonel Sykes has been the subject of some erroneous comment, and has been adduced by one writer, Dr. Mühry, as a proof that an upper return current descends occasionally to the elevation of Dodabetta, (8,640 feet). The present description shows that it is a normal feature of the monsoon current itself; the pressure in the east of the peninsula being invariably lower than in the same latitudes on the west coast. In Western Rajputana, the isobars make a strong salient angle towards the north-east, indicating that a local axis of high pressure runs from the Gulf of Cambay and Kathiawar up the line of the Aravalis, with lower pressure on either side, *viz.*, in the Indus Valley on the one hand, and in Central India and the Central Provinces on the other. This axis coincides with the local direction of the strong winds, shown by the anemometric registers of Kurrachee, Surat, Deesa, Bhuj, and Rajkot to prevail in this region, and which bring the major part of the rain that falls in Rajputana, Central India, and even in the Punjab and upper part of the North-Western Provinces.

The normal meeting place of the eastern and western branches of the monsoon is indicated by the trough of low pressure, above mentioned, which runs down from the Punjab towards the south-east; the westerly branch prevailing everywhere to the south-west of this trough, and the easterly branch (more frequently in the Gangetic plain) to the north-east. As a general rule, with but slight shifting of position, this trough of pressure, and, indeed, the distribution of pressure generally, as exhibited in the charts, maintain their characteristic features, from day to day, during the monsoon season, amid all the oscillations of pressure which take place over India; but, in intervals of drought, when north-westerly and westerly winds interrupt the monsoon in North-Western and Central India, it is pushed northward to the foot of the hills, and sometimes divided into an eastern and a western minimum by the encroachment of the shoulder of higher pressure around the Gulf of Cambay. On the other hand, during the height of the rains, at certain intervals, true cyclonic vortices, with closed isobars, (barometric minima) are formed on or in the immediate neighbourhood of this trough, and more especially on the coasts of Lower Bengal and Orissa; and then for some days move forwards slowly, either westward to the Central Provinces, and even to Guzerat and Cutch, or north or north-westward towards the Gangetic plain. Occasionally, also, they are formed in Lower Bengal, or in the hilly country between Hazaribagh, Cuttack and Raipur. Whatever their position, these minima determine, for the time being, the meeting place of the two branches of the monsoon. They are accompanied by local torrents of rain, but the area of the central depression is large and the barometric gradients around are invariably moderate, and by no means comparable with those of the fierce and destructive cyclones, that are generated over the sea surface of the mid-Bay at the beginning and end of the rains. These, and some other peculiarities, have been noticed at length, by Mr. Eliot, in the 6th Memoir of volume II of this serial, and explained on the assumption, which other considerations render probable,

that the vertical depth of the atmospheric stratum, in which the vortex is set up, is much greater in these south-west monsoon storms, than in the more violent but less durable storms of the transition periods. Some examples of these cyclones are represented in Plate VI.

It is only a portion, indeed the smaller portion, of the Bengal branch of the monsoon that, after passing over Bengal and Orissa, is diverted westward. The greater part of the current carries rain to Eastern Bengal and Assam, to British and Native Burma and the hill chains that enclose and traverse them. How far it penetrates to the interior, we have no present knowledge; and our knowledge of the distribution of pressure in those regions is limited to so much as lies within British territory, *viz.*, Assam and Eastern Bengal and the plains of the Lower Irawadi. The pressure, in Assam, is generally rather lower than to the south, during the summer monsoon, as is indicated by the course of the isobars, which run obliquely in a north-easterly direction across the Bay of Bengal, and tend to curve to the eastward in Eastern Bengal. But the pressure in Assam is always higher than in Western Bengal, even at the height of the rains. While the lowest stratum of wind, which blows from the Bay, curves round and becomes more southerly or eventually south-easterly and easterly, as has already been described, the higher portion of the current appears to be but little deflected; it blows, as a south-west wind, over the hill ranges which shut in Assam on the south, and precipitate, on their southern face, that torrential rainfall that has long rendered Cherra Poonjee a place of world-wide fame. In like manner, there is little doubt that a deep and strong current sweeps over the crest of the Arakan Yoma, or coast range, and even the interior hills of Burma, scarcely any of which exceed 4,000 feet or 5,000 feet in height, while a strong wind blows from the mouth of the Irawadi, up the valley, between the Arakan and Pegu Yomas. This latter current evidently blows towards a region of low pressure, indicated by the stations Thayetmyo and Bassein, which lies under the lee of the Arakan Yoma, and in which the pressure declines from south to north; so that there is a high probability that, in Ava, it is lower than in Pegu throughout the monsoon rains; and this probability is increased, when it is remembered that the latter country is drier and has a higher temperature than the delta of Pegu; its relation to the latter being similar to that borne by the Gangetic plain and the Punjab to Bengal.

The following wind registers of stations in the Assam valley and in the lower valley of the Irawadi will serve to illustrate the above description. Those of stations on the Arakan coast have already been given on page 20.

*Percentage of wind directions in the summer monsoon.*

| Stations. | Years. | N. | N.-E. | E. | S.-E. | S. | S.-W. | W. | N.-W. | Calms. |
|---|---|---|---|---|---|---|---|---|---|---|
| **A.—ASSAM VALLEY.** | | | | | | | | | | |
| Goalpara | 12 | 4 | 7 | 9 | 10 | 10 | 9 | 11 | 6 | 14 |
| Sibsagar | 9 | 5 | 24 | 4 | 8 | 8 | 21 | 10 | 7 | 3 |
| **B.—PEGU AND TENASSERIM.** | | | | | | | | | | |
| Bassein | 7 | 1 | 1 | 2 | 5 | 33 | 23 | 17 | 7 | 2 |
| Rangoon | 8 | 1 | 2 | 3 | 10 | 34 | 40 | 8 | 2 | 3 |
| Thayetmyo | 6 | 1 | 2 | 1 | 26 | 52 | 14 | 4 | 1 | ... |
| Toungoo | 6 | ... | 2 | 1 | 48 | 10 | 25 | ... | 2 | 13 |
| Mergui | 2 | 2 | 2 | 1 | 7 | 16 | 40 | 17 | 5 | 1 |

From a comparison of the barometric readings at Colombo and Newera Eliya in Ceylon, with those of Roorkee and Chakrata in the North-Western Provinces, it appears that the barometric gradient, which determines the movement of the monsoon, becomes evanescent at an average elevation of from 12,000 to 14,000 feet; this must therefore be taken as an approximate measurement of the average depth of the current, as between Ceylon and the Upper Gangetic valley. At certain times it is probably much deeper, since this average includes all those cases in which the monsoon is interrupted by North-Westerly land winds; when therefore, over a considerable portion of India, the gradient must be reversed.

The average quantity of vapour in the atmosphere during the monsoon season near the ground level, varies from .16 to 22 parts by weight in 1,000 of air, and from 7½ to nearly 11 grains per cubic foot. During the height of the monsoon, in July and August, it varies less with varying distance from the sea than might be supposed, but it diminishes more rapidly with increasing elevation, as the following instances show:—

*Absolute and relative humidity of the air at certain stations in the summer monsoon.*

| Stations. | Elevation, feet. | Miles from sea. | Parts of vapour in 1,000 of air. | | | | Relative humidity. | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | Aug. | Sept. | June. | July. | Aug. | Sept. |
| Bombay | 37 | 0 | 20 | 20 | 19 | 18 | 82 | 88 | 87 | 86 |
| Poona | 2,000 | 64 | 16 | 16 | 16 | 16 | 73 | 81 | 82 | 79 |
| Nagpur | 1,025 | 405 | 15 | 18 | 18 | 17 | 53 | 78 | 79 | 76 |
| Saugor Island | 6 | 0 | 22 | 22 | 22 | 21 | 83 | 86 | 87 | 85 |
| Berhampore | 66 | 176 | 19 | 20 | 20 | 20 | 79 | 85 | 83 | 83 |
| Patna | 179 | 307 | 18 | 20 | 20 | 19 | 60 | 76 | 78 | 77 |
| Benares | 267 | 368 | 16 | 20 | 20 | 19 | 58 | 80 | 82 | 80 |
| Allahabad | 307 | 430 | 16 | 20 | 20 | 19 | 46 | 74 | 78 | 77 |
| Agra | 555 | 540 | 13 | 19 | 19 | 17 | 38 | 63 | 66 | 63 |
| Roorkee | 887 | 690 | 12 | 19 | 19 | 16 | 50 | 76 | 77 | 73 |
| Lahore | 732 | 670 | 12 | 18 | 18 | 16 | 33 | 55 | 58 | 52 |
| Hazaribagh | 2,010 | 205 | 15 | 18 | 18 | 17 | 63 | 85 | 85 | 85 |
| Pachmarhi | 3,504 | 384 | 14 | 16 | 16 | 16 | 57 | 88 | 90 | 84 |
| Ranikhet | 6,069 | 730 | 11 | 15 | 15 | 13 | 55 | 83 | 85 | 78 |
| Darjeeling | 6,912 | 375 | 14 | 15 | 15 | 14 | 91 | 92 | 92 | 91 |

From a consideration of the figures in this table, it would seem probable that the air of the monsoon current, near the ground surface, contains nearly the same proportion of vapour, at all distances from the sea to which it penetrates, and that the small diminution, which is shown in the average proportion of the more inland stations in July and Augus,

and the greater diminution in June and September, is due to the more frequent occurrence of dry land winds in the Upper Provinces; more especially in such seasons as that of 1877, and during the month of August 1880. That the average proportion of vapour in the Upper Provinces is so high, notwithstanding these land winds, serves to confirm the conclusion, drawn from other considerations, that local evaporation is an important element in the sources of the vapour supply.

I now pass to the consideration of the more immediate subject of the paper, *viz.*, the normal distribution of the rainfall in the summer monsoon, to which the foregoing description is preliminary.

MALABAR, KONKAN AND WESTERN GHATS.—The heaviest rainfall in the Indian peninsula is that of the west coast and the Ghats, where the average annual fall considerably exceeds 100 inches, and at certain places, such as Matheran, Baura Fort and Mahableshwar, rises to 250 inches or somewhat more. The cause of this excessive precipitation is two-fold. In the first place, the retardation experienced by the monsoon current on reaching the land, sets up eddies, which, even in the absence of hills, would exaggerate the rainfall of the maritime belt, an effect displayed equally on the seaward margin of the Gangetic delta, and on the east coast of the Carnatic in the late autumn monsoon. And in the second place, the forced ascent of a portion of the current from the low country of Malabar and the Konkan to the crest of the Western Ghats, an ascent which must be in progress over the whole breadth of this marginal tract, is an additional and, perhaps, more potent cause of dynamic cooling and precipitation.

The rainfall of the west coast is by no means uniform, as regards either periodicity or total quantity. In the south-west of Ceylon, (*e.g.*, Galle and Ratnapura) a considerable amount of rain falls in every month of the year, and there are two maxima annually, as is generally the case in the neighbourhood of the equator, *viz.*, at the beginning and end of the Indian monsoon. At Cochin (lat. 9° 58′ N.) the summer rains are more distinctly defined; but they begin a fortnight or more before they are felt at Bombay, and still present two maxima, the greater in June, the lesser in October. Further north, (*e. g.*, at Tellicherry and Cannanore,) the second minimum disappears, but the maximum is still very pronounced in June, or between June and July. The June maximum is characteristic as far north as the limits of the Madras Presidency, (between Mangalore and Honawar, about lat. 12° 30′ N.); but, at the latter station, the July fall slightly exceeds that of June, and also at Karwar, Vingurla and Ratnagiri. It is most decided at Surat and Broach. At Bombay, the monsoon rains set in, as a rule, in the first or second week of June.

The heaviest summer rainfall on this coast is a little to the south of Honawar, about in lat. 13° N., where, from June to October inclusive, it reaches an average of over 130 inches. It diminishes more rapidly to the north than to the south, a difference which probably depends in part on the greater height of the coast range of hills in the south of the peninsula. The gradual decrease northward of the rainfall in May and October, and the position of the seat of maximum, in the several months of the summer monsoon, as well as the variation of the total monsoon rainfall described above, is illustrated in the following table, in which the maximum rainfall of each month is distinguished by a stronger type. The May rainfall is included in this table, as the summer monsoon really sets in in this month at the more southern stations.

*Summer rainfall of the west coasts of Ceylon and the Indian peninsula.*

| Appendix Number. | Stations. | Elevation, feet. | Inches of rainfall. | | | | | | Total May to October. | Total June to October. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | May. | June. | July. | August. | Sept. | Oct. | | |
| 412 | Gallé | 48 | 11·36 | 7·90 | 5·50 | 5·65 | 7·63 | **12·37** | 50·41 | 39·05 |
| 413 | Colombo | 40 | **13·09** | 7·52 | 5·63 | 4·99 | 4·72 | **12·36** | 48·31 | 35·22 |
| 405 | Cochin | 11 | 12·91 | 31·40 | 22·62 | 12·48 | 9·31 | 11·42 | 99·84 | 86·93 |
| 403 | Calicut | 50 | 9·80 | 35·17 | 29·77 | 14·30 | 8·09 | 8·60 | 105·73 | 95·93 |
| 401 | Tellicherry | 50 | 8·96 | 38·94 | 36·27 | 16·83 | 9·94 | 6·87 | 117·81 | 108·85 |
| 400 | Cannanore | 51 | 6·86 | **41·58** | 39·49 | 18·47 | 9·14 | 7·44 | 122·98 | 116·12 |
| 399 | Mangalore | 52 | 8·56 | 38·64 | 37·86 | 23·36 | 11·43 | 8·01 | 127·86 | 119·30 |
| 293 | Honawar | 50 | 3·62 | 40·68 | **42·83** | **27·48** | **15·93** | 5·29 | **136·11** | **132·49** |
| 292 | Karwar | 44 | 3·00 | 34·54 | 37·07 | 21·73 | 12·48 | 4·78 | 113·60 | 110·60 |
| 290 | Vingula | 100 | 1·92 | 34·74 | 35·53 | 21·71 | 14·75 | 3·91 | 109·56 | 107·64 |
| 288 | Ratnagiri | 110 | 1·49 | 31·85 | 33·17 | 19·60 | 12·93 | 3·33 | 102·37 | 100·88 |
| 284a | Bombay | 37 | 0·56 | 20·80 | 24·52 | 14·99 | 10·74 | 1·78 | 73·39 | 72·83 |
| 281 | Surat | 36 | 0·12 | 9·78 | 13·36 | 9·82 | 7·35 | 1·31 | 41·74 | 41·62 |
| 280 | Broach | 58 | 0·10 | 7·03 | 15·06 | 8·81 | 6·84 | 1·48 | 39·32 | 39·22 |

The rainfall on the Ghats range is much higher than on the coast, and would doubtless show similar laws of variation, were the average fall of each part of the range accurately determined. To a certain extent, this is shown by the stations on the list; but the fall of any given station is so much affected by elevation and peculiarities of local exposure, that variations arising from these conditions introduce much irregularity into the tabulated results of the few stations available for comparison.

*Summer rainfall of the Ceylon Hills and the Western Ghats of India.*

| Appendix Number. | Stations. | Elevation, feet. | Inches of rainfall. | | | | | | Total May to October. | Total June to October. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | May. | June. | July. | August. | Sept. | Oct. | | |
| 417 | Kandy | 1,696 | 6·39 | 8·87 | 7·60 | 5·92 | 5·85 | 10·78 | 45·41 | 39·02 |
| 416 | Newera Eliya | 6,150 | 8·51 | 14·70 | 14·57 | 9·36 | 9·18 | 10·41 | 66·73 | 58·22 |
| * | Uttray Mullay | 4,500 | 29·59 | 51·60 | 41·73 | 23·34 | 7·70 | 54·47 | 208·43 | 178·84 |
| 404 | Palghat | 800 | 4·31 | 18·59 | 20·65 | 10·79* | 6·12 | 6·74 | 67·20 | 62·89 |
| 402 | Manantoddy | 2,558 | 5·08 | 22·66 | 32·04 | 16·76 | 7·89 | 5·95 | 90·38 | 85·30 |
| 339 | Mercara | 3,694 | 6·05 | 26·38 | 43·27 | 24·86 | 12·80 | 7·71 | 121·07 | 115·02 |
| 289 | Baura | 2,800 | 2·50 | 55·00 | 89·44 | 58·82 | 36·39 | 9·79 | 251·94 | 249·44 |
| 287 | Mahableshwar | 4,540 | 1·28 | 47·85 | 99·75 | 68·24 | 33·11 | 5·25 | 255·48 | 254·20 |
| 286 | Lanauli | 2,037 | 0·51 | 29·68 | 64·16 | 41·47 | 24·33 | 4·43 | 164·58 | 164·07 |
| 285 | Matheran | 2,200 | 0·45 | 43·07 | 98·09 | 63·46 | 34·38 | 5·25 | 244·70 | 244·25 |
| 282 | Igatpuri | 1,922 | 1·16 | 22·25 | 44·70 | 33·60 | 17·04 | 4·52 | 123·27 | 121·11 |

* From Col. Sykes' Memoir. Phil. Trans., Vol. 140, p. 358.

MYSORE, HYDERABAD AND DECCAN PLATEAU; KHANDESH AND BERAR.—In crossing the Ghats, the monsoon current has lost a large proportion of its vapour; from $\frac{1}{8}$ to $\frac{1}{5}$ apparently, as results from a comparison of the figures in the table on page 25, which give the average quantity of vapour in the air at Bombay and Poona, respectively, during the summer monsoon. As the crest of the Ghats forms the general watershed of the peninsula, and the average slope of the country therefrom is towards the east coast, which slope is followed by the monsoon current, the conditions are unfavourable to further precipitation; and accordingly, all the western part of the Deccan and Mysore plateau presents a comparatively dry tract, the average monsoon rainfall of which (from June to October) is almost everywhere, except within a few miles of the Ghats, below 30 inches, and over a large portion of it below 20 inches.

*Summer rainfall of Mysore and Deccan plateau.*

WESTERN STATIONS.

| Appendix Number. | Stations. | Elevation, feet. | Inches of rainfall. | | | | | | Total May to October. | Total June to October. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | May. | June. | July. | August. | Sept. | Oct. | | |
| 340 | Mysore | 2,513 | 5·65 | 1·82 | 2·34 | 3·24 | 3·89 | 6·32 | 23·26 | 17·61 |
| 335 | Hassan | 3,150 | 4·07 | 4·32 | 4·87 | 2·83 | 2·12 | 4·61 | 22·82 | 18·75 |
| 334 | Chikmagalur | 3,418 | 5·32 | 4·38 | 6·51 | 3·25 | 3·04 | 6·98 | 29·48 | 24·16 |
| 332 | Shimoga | 1,900 | 3·28 | 4·42 | 6·67 | 4·13 | 2·92 | 5·00 | 26·42 | 23·14 |
| 309 | Kalghatgi | 2,100 | 1·63 | 5·45 | 7·12 | 4·48 | 3·54 | 4·90 | 27·12 | 25·49 |
| 308 | Hubli | 2,061 | 2·47 | 4·38 | 4·41 | 3·27 | 3·21 | 5·59 | 23·33 | 20·86 |
| 307 | Dharwar | 2,586 | 2·89 | 5·45 | 6·31 | 5·13 | 3·32 | 5·80 | 28·90 | 26·01 |
| 305 | Belgaum | 2,550 | 2·83 | 9·60 | 15·05 | 8·97 | 3·66 | 4·60 | 44·71 | 41·88 |
| 304 | Gokak | 2,500 | 1·74 | 3·38 | 1·96 | 2·27 | 3·20 | 5·87 | 18·42 | 16·68 |
| 303 | Kaladgi | 1,744 | 1·41 | 3·33 | 2·09 | 3·18 | 5·46 | 4·55 | 20·02 | 18·61 |
| 302 | Kolhapur | 1,797 | 2·07 | 7·56 | 11·49 | 7·17 | 4·07 | 4·92 | 37·28 | 35·21 |
| 299 | Satara | 2,200 | 1·37 | 7·85 | 13·00 | 7·34 | 4·53 | 3·39 | 37·48 | 36·11 |
| 298 | Poona | 1,819 | 1·64 | 5·87 | 6·59 | 4·21 | 4·24 | 3·87 | 26·42 | 24·78 |
| 296 | Nasik | 1,962 | 0·61 | 6·13 | 7·26 | 5·13 | 5·19 | 3·64 | 27·96 | 27·35 |
| | CENTRAL STATIONS. | | | | | | | | | |
| 337 | Bangalore | 2,981 | 4·95 | 3·20 | 4·03 | 6·09 | 6·34 | 6·31 | 30·92 | 25·97 |
| 336 | Tumkur | 2,682 | 4·59 | 3·86 | 3·46 | 5·18 | 5·34 | 7·15 | 29·58 | 24·99 |
| 333 | Chitaldroog | 2,383 | 3·73 | 3·15 | 2·77 | 3·32 | 3·51 | 5·12 | 21·60 | 17·87 |
| 310 | Mandargi | 1,950 | 1·76 | 1·87 | 2·21 | 2·38 | 3·69 | 4·34 | 16·18 | 14·42 |
| 359 | Bellary | 1,455 | 1·86 | 1·71 | 1·38 | 2·34 | 3·76 | 3·76 | 14·81 | 12·95 |
| 358 | Adoni | 1,361 | 1·58 | 4·03 | 4·32 | 5·93 | 5·77 | 4·94 | 26·37 | 24·79 |
| 330 | Lingsugur | 1,300 | 0·90 | 3·24 | 2·60 | 4·45 | 5·76 | 4·51 | 21·46 | 20·56 |

*Summer rainfall of Mysore and Deccan plateau*—continued.

CENTRAL STATIONS—contd.

| Appendix Number. | Stations. | Elevation, feet. | Inches of rainfall. | | | | | | Total May to October. | Total June to October. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | May. | June. | July. | August. | Sept. | Oct. | | |
| 331 | Raichur | 1,325 | 0·74 | 4·46 | 3·67 | 5·22 | 4·91 | 4·12 | 23·12 | 22·38 |
| 328 | Shorapur | 1,600 | 0·37 | 3·12 | 4·12 | 5·36 | 5·19 | 3·53 | 21·69 | 21·32 |
| 301 | Bijapur | 1,999 | 0·71 | 3·60 | 2·51 | 4·24 | 6·09 | 4·25 | 21·40 | 20·69 |
| 322 | Gulbarga | 1,508 | 1·41 | 5·05 | 4·53 | 7·56 | 6·45 | 2·77 | 27·77 | 26·36 |
| 300 | Sholapur | 1,590 | 1·21 | 4·85 | 4·35 | 6·09 | 7·50 | 3·32 | 27·32 | 26·11 |
| 320 | Naldurg | 1,400 | 0·91 | 7·95 | 4·58 | 8·94 | 9·85 | 2·67 | 34·90 | 33·99 |
| 321 | Bidar | 2,204 | 0·49 | 6·97 | 9·28 | 11·15 | 9·11 | 3·62 | 40·62 | 40·13 |
| 314 | Bheer | 2,000 | 0·37 | 6·01 | 5·50 | 5·99 | 8·21 | 2·29 | 28·87 | 28·50 |
| 315 | Nandair | 1,276 | 0·73 | 6·78 | 7·69 | 9·08 | 7·18 | 3·10 | 34·56 | 33·83 |
| 297 | Ahmednagar | 2,180 | 1·37 | 5·02 | 3·11 | 4·13 | 6·94 | 2·94 | 23·51 | 22·14 |
| 313 | Parbhani | 1,250 | 0·18 | 6·49 | 7·43 | 7·86 | 8·71 | 1·88 | 32·55 | 32·37 |
| 312 | Hingoli | 1,600 | 0·75 | 6·72 | 9·99 | 8·46 | 7·39 | 2·08 | 35·39 | 34·64 |
| 311 | Aurangabad | 1,700 | 0·90 | 6·82 | 6·55 | 6·80 | 7·32 | 2·48 | 30·87 | 29·97 |
| | EASTERN STATIONS. | | | | | | | | | |
| 363 | Cuddapah | 477 | 1·58 | 2·61 | 3·45 | 5·21 | 5·89 | 5·15 | 23·89 | 22·31 |
| 360 | Gooty | 1,168 | 1·87 | 2·66 | 2·88 | 4·07 | 4·40 | 4·07 | 19·95 | 18·08 |
| 357 | Kurnool | 900 | 2·10 | 3·28 | 5·03 | 6·21 | 6·31 | 3·79 | 26·72 | 24·62 |
| 329 | Nagar Kurnool | 1,200 | 1·33 | 4·35 | 5·86 | 7·11 | 5·44 | 2·52 | 26·61 | 25·28 |
| 325 | Hyderabad | 1,662 | 0·80 | 4·41 | 5·42 | 6·17 | 7·20 | 3·37 | 27·37 | 26·57 |
| 324 | Secunderabad | 1,787 | 1·41 | 3·65 | 5·72 | 5·62 | 5·18 | 3·30 | 24·88 | 23·47 |
| 326 | Nalgonda | 1,900 | 1·74 | 3·10 | 4·41 | 4·93 | 6·27 | 3·92 | 24·37 | 22·63 |
| 327 | Khamam | 900 | 0·91 | 4·78 | 6·11 | 6·99 | 6·02 | 2·19 | 27·00 | 26·09 |
| 318 | Medak | 1,100 | 0·51 | 4·17 | 6·76 | 9·39 | 7·08 | 2·49 | 30·40 | 29·89 |
| 319 | Ibrahimpatan | 1,100 | 1·36 | 5·64 | 5·93 | 7·69 | 5·80 | 2·97 | 29·39 | 28·03 |
| 317 | Yelgandal | 1,147 | 1·31 | 4·46 | 6·34 | 6·77 | 7·71 | 2·66 | 29·25 | 27·94 |
| 316 | Indur | 1,200 | 0·26 | 3·85 | 8·54 | 9·46 | 7·02 | 2·55 | 31·68 | 31·42 |

The above table is very instructive with regard to the summer monsoon rainfall on the interior plateau of the peninsula. In the first place, let us note the distribution of the total fall of the season. The seat of the minimum rainfall is in the Bellary district of Madras, and in the adjoining districts of Mysore, Hyderabad and Bombay. On the map, Plate VII, this region is the central part of the space surrounded by the ishyetic of 20 inches, where it broadens out and extends across the peninsula to the east coast. The area, within which the rainfall does not exceed 20 inches, does not extend so far north as the valley of the Kistna, below its junction with the Malprabha; but, to the west of this point, runs through the districts of Dharwar, Belgaum, Kaladgi, Sholapur, Ahmednagar,

Poona and Nasik, parallel with the line of the Ghats, and at a distance of from 60 to 90 miles from their crest, up to Dhulia in Khandesh, and indeed almost to the foot of the Satpura Hills. In its southward extension, it includes a great part of the Mysore plateau, down to the foot of the Nilgiri Hills. It is this region, and more especially the part of it immediately around Bellary and in Northern Mysore, which has repeatedly suffered the horrors of famine in its most intense form, as stands in evidence in the charts, which illustrate the report of the Commissioners, appointed in 1878 by the Secretary of State for India, to consider the question of Indian Famines.

The region within which the rainfall of the summer monsoon is below 30 inches, is much more extensive. With the exception of a narrow strip fringing the western mountains, it comprises the whole southern and western portion of the Deccan plateau, including the valleys of the Kistna and its tributaries; but it is bounded on the north by the valley of the Godaveri, and the hilly region, in the heart of Hyderabad State, drained by its tributary the Manjera. In the north-west of the Nizam's dominions, it includes, however, the region about the head waters of both these rivers. It includes also the valley of Berar, but not the higher ground to the south of the Indhyadri hills, where the summer rainfall is above 30 inches. The normal summer rainfall of Khandesh and Berar is shown in the following table:—

*Summer rainfall of Khandesh and Berar.*

| Appendix Number. | Stations. | Elevation, feet. | Inches of Rainfall. | | | | | Total. |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | Sept. | Oct. | |
| 295 | Malegaon | 1,430 | 5·26 | 4·11 | 4·35 | 6·18 | 2·13 | 22·03 |
| 294 | Dhulia | 1,000 | 4·76 | 4·59 | 4·08 | 4·35 | 1·66 | 19·44 |
| 254 | Akola | 930 | 5·22 | 7·10 | 6·75 | 5·70 | 1·99 | 26·76 |
| 253 | Amraoti | 1,213 | 6·87 | 8·76 | 7·34 | 5·23 | 1·50 | 29·70 |
| 252 | Ellichpur | 1,218 | 5·97 | 7·95 | 5·77 | 5·37 | 1·75 | 26·81 |
| 255 | Buldana | 2,132 | 6·49 | 7·58 | 7·54 | 6·32 | 2·18 | 30·11 |
| 256 | Yeotmal | 1,476 | 7·85 | 13·01 | 9·44 | 7·37 | 2·23 | 39·90 |
| 257 | Basim | 1,842 | 8·49 | 10·91 | 8·25 | 7·64 | 1·80 | 37·09 |
| 258 | Wun | 755 | 6·01 | 11·30 | 10·85 | 6·57 | 1·57 | 36·30 |

Bearing in mind the general configuration of the country, that, with the exception of a dip in the chain opposite Belgaum, the Ghats on the western margin of the plateau form an unbroken range, while the Eastern Ghats are broadly interrupted where the valleys of the Kistna and Godaveri afford an outlet for the drainage of the plateau to the east coast, a study of the chart at once suggests a partial explanation of the distribution of the summer rainfall of the plateau; and the view, thus suggested, receives confirmation from the evidence of the wind tables, which have already been given on a previous page (p. 18). It will be noticed, in the first place, that the tract in which the rainfall exceeds 30 inches, has a boundary roughly coincident with that of the hilly country drained by the Godaveri and its tributary the Manjera, while that in which it exceeds 20 inches comprises, in addition to nearly the whole of the Godaveri basin,

that of the Kistna up to its junction with the Malprabha, (excepting the upper basin of the Tunghabhadra). Thus, then, the relation of the rainfall to the river valleys is very striking. When further we notice that the course of the Godaveri is from north-west to south-east, and that of the Kistna chiefly from west to east, we see that the former offers a less obstructed passage to southerly winds from the Bay of Bengal than the latter, and therefore more readily gives admission to a supply of vapour from the east coast. And finally turning back to the wind tables on page 18, we find that, while at Bangalore, Bellary, Belgaum, &c., winds other than westerly are of extreme rarity during the summer monsoon, altogether not exceeding from 3 to 5 per cent. of the whole, at Chanda, and still more at Sironcha in the Godaveri valley, winds from between south and east alone amount to 12 and 17 per cent. respectively. Considering these facts, the conclusion is almost irresistible that, the increased rainfall of the north and north-east of the great plateau of the peninsula is in some measure due to an influx of vapour from the east coast, and mainly up the valley of the Godaveri. To the north of this river the high table-land of Jeypore opposes a certain barrier to the direct passage of the vapour-laden winds from the Bay. But there is another source of vapour which is probably not unimportant. This is local evaporation, which must be much more considerable in the comparatively fertile, and in great part forest-clad drainage basin of the Godaveri and its tributaries, than in the bare, and in part rocky tract, drained by the Kistna and its affluents. The extent to which this is operative cannot of course be estimated, but it can hardly be doubted that evaporation from vegetation, from irrigation, and from the general land surface wetted by rainfall is more considerable in the basin of the Godaveri, especially the eastern half, than from the bare rolling plains dotted with rocky tors and equally bare hills, which constitute so large a portion of the Kistna basin and the table-land of Mysore.

Apart from these physiographic peculiarities of the two river basins, there is another condition which determines a general increase of the rainfall from south to north, *viz.*, the approach to the zone of maximum precipitation, which runs across India, and which, as has been pointed out on pages 19, 25, is determined by the fact that it is the debatable ground of the two branches of the monsoon, and therefore the chief seat of convective ascent.

It remains to notice the variation of the rainfall in the different months of the summer monsoon on the plateau of the interior. That portion of Mysore which is beyond the influence of the Western Ghats exhibits a double maximum, the first in May, the second in October. At Mysore the rainfall of May is three times as great as that of June, and greater than that of any of the succeeding months save October. At Bangalore, the May maximum is less pronounced, but still distinct; and after declining to less than three-fourths of the amount in June, the average precipitation increases steadily up to September, and falls off again only slightly, if at all, in October. Further north, immediately under the lee of the Ghat range, (Chikmagalur, Shimoga, Kalghatgi, Hubli, Dharwar, Gokak and Kaladgi), there are also two well-marked maxima, the first in July (at Gokak and Kaladgi in June), the second in October (at Kaladgi in September); and, at all these stations, the October rainfall exceeds that of the earlier part of the monsoon. But Belgaum, which appears to be more within the influence of the high precipitation on the Ghats, although it also exhibits a double maximum, receives its greatest fall while the summer monsoon is at its height, with a very decided maximum amounting to 15 inches in July; contemporaneous, therefore, with the maximum on the adjacent portion of the Ghats

and Konkan, (Goa, Vingurla): and the excess of the October fall over that of September is comparatively small. A similar phenomenon is shown by Kolhapur, further north and somewhat similarly situated, but Satara, Poona, and Nasik, near the northern extremity of the Ghat range, have but one maximum, *viz.*, in July.

Those portions of the plateau that lie at a greater distance from the Western Ghats have, as a rule, but one maximum, and this falls midway between the two maxima of the more westerly stations. There are, however, some exceptions. Thus, Bellary has a first maximum in May and June, a second and absolute maximum in September and October. Bijapur also, like Kaladgi, (about 40 miles to the south), has a first maximum in June and a second and absolute maximum in September. Some of the stations in Hyderabad, the averages of which are given in the table, also exhibit a double maximum; but the registers are for too short a period to allow of the results being admitted as accurately representative in detail. As a general rule, in Hyderabad and the central and eastern parts of the Deccan plateau, it would appear that the maximum fall takes place in August or September; in the former month at the more northerly, in the latter at the more southerly stations.

It is to be remarked, and the fact is somewhat striking, that it is only those stations which are in the immediate neighbourhood of the Ghat range, that have the second maximum in October. At stations in the central and eastern part of the plateau, the September rainfall is heavier, and at the most easterly of all in August.

In seeking the probable explanation of these variations, we must consider, somewhat in detail, the monthly variations in the steadiness of the monsoon, on the plateau of the peninsula. These are indicated in the following tables, which are based on the observations of four or five years, and show the percentage prevalence of the eight principal winds, in each month from May to October, at the six stations Bangalore, Bellary, Belgaum, Secunderabad, Sholapur and Poona.

*Monthly percentage of winds at six stations on the plateau of the peninsula.*

| | Months. | N. | N.-E. | E. | S.-E. | S. | S.-W. | W. | N.-W. | Calms. |
|---|---|---|---|---|---|---|---|---|---|---|
| Bangalore, 5 years. | May | ... | 2 | 1 | 6 | 8 | 37 | 39 | 6 | ... |
| | June | ... | ... | ... | 1 | 3 | 54 | 41 | 21 | ... |
| | July | ... | ... | ... | ... | 3 | 48 | 46 | 3 | ... |
| | August | ... | ... | ... | ... | 1 | 38 | 59 | 2 | ... |
| | September | 1 | ... | 1 | 2 | 1 | 29 | 58 | 8 | ... |
| | October | 4 | 22 | 14 | 8 | 4 | 14 | 22 | 12 | ... |
| Bellary, 5 years. | May | 5 | 3 | 4 | 4 | 3 | 12 | 30 | 39 | ... |
| | June | 2 | ... | ... | 1 | 1 | 19 | 56 | 21 | ... |
| | July | 1 | 1 | ... | ... | 2 | 11 | 61 | 24 | ... |
| | August | ... | ... | ... | 1 | 1 | 10 | 63 | 25 | ... |
| | September | 3 | 2 | 2 | 3 | ... | 8 | 43 | 38 | ... |
| | October | 15 | 13 | 13 | 15 | 6 | 4 | 10 | 22 | ... |

*Monthly percentage of winds at six stations on the plateau of the peninsula*—continued.

| | Months. | N. | N.-E. | E. | S.-E. | S. | S.-W. | W. | N.-W. | Calms. |
|---|---|---|---|---|---|---|---|---|---|---|
| Belgaum, 5 years. | May | 6 | 6 | 2 | 1 | 2 | 7 | 60 | 13 | 3 |
| | June | 2 | 1 | 1 | ... | 1 | 18 | 69 | 7 | 1 |
| | July | 1 | 1 | ... | ... | ... | 4 | 83 | 10 | 1 |
| | August | ... | ... | ... | ... | ... | 7 | 86 | 6 | 1 |
| | September | 2 | 2 | 1 | 2 | 2 | 9 | 65 | 14 | 3 |
| | October | 5 | 20 | 26 | 8 | 4 | 8 | 19 | 5 | 5 |
| Secunderabad, 5 years. | May | 3 | 6 | 8 | 9 | 4 | 18 | 24 | 28 | ... |
| | June | ... | ... | ... | 1 | 1 | 30 | 49 | 19 | ... |
| | July | ... | ... | 1 | 1 | 1 | 50 | 35 | 12 | ... |
| | August | ... | ... | 1 | 1 | ... | 31 | 45 | 23 | ... |
| | September | ... | ... | 4 | 3 | 1 | 21 | 34 | 36 | ... |
| | October | 5 | 27 | 21 | 8 | 2 | 5 | 8 | 23 | 1 |
| Sholapur, 4 years. | May | 17 | 9 | 1 | 3 | 2 | 7 | 13 | 44 | 4 |
| | June | 3 | 1 | ... | 3 | 1 | 30 | 28 | 33 | 1 |
| | July | 1 | 1 | ... | 1 | 2 | 47 | 30 | 13 | 4 |
| | August | ... | 1 | ... | ... | ... | 24 | 52 | 19 | 4 |
| | September | 3 | 5 | ... | 1 | 1 | 14 | 35 | 36 | 5 |
| | October | 8 | 27 | 11 | 6 | 2 | 15 | 5 | 12 | 14 |
| Poona, 5 years. | May | 15 | 1 | ... | 3 | 2 | 7 | 29 | 42 | 1 |
| | June | 7 | 1 | ... | 1 | 3 | 23 | 45 | 19 | 1 |
| | July | 2 | ... | 1 | ... | 2 | 24 | 54 | 17 | ... |
| | August | ... | 1 | ... | ... | 2 | 17 | 64 | 15 | ... |
| | September | 3 | 2 | 1 | 2 | 3 | 18 | 51 | 18 | 2 |
| | October | 14 | 15 | 21 | 11 | 7 | 4 | 12 | 10 | 6 |

From the above, it is evident that the winds are most variable in May and October, and remarkably steady in July and August. In a detailed discussion of the relations of the winds to rainfall at Calcutta (vol. I, page 20), it was shown that at that station "it is not when the monsoon current is blowing steadily, that rain is most probable, but when it is deflected from its normal direction by some local irregularity of pressure," in other words, when it is deflected by a local barometric minimum, in the neighbourhood of which an ascending current is established. Hence it is that, on the central part of the plateau, (Bangalore, Bellary, Bijapur, Sholapur) the rainfall of July and August is less than when the winds become unsteady towards the close of the monsoon. This, however, is not the case at stations such as Shimoga, Dharwar, Belgaum and Satara, which are to some extent within the influence of the Ghats, that is, of the forced ascending current, and the eddies produced among the hills that extend inland from the Ghats. These have their maximum, or at all events a first maximum of precipitation, coincident with that of the Konkan and Ghat stations; but of course greatly diminished in degree.

In September, and still more in October, the seat of the barometric minimum is less persistent in Northern India. Local depressions are formed in the eastern part of the peninsula which cause an indraught from the Bay of Bengal; and travelling westward, bring a certain increase of rainfall to the plateau of the Deccan and Mysore. Moreover, the barometric charts show that, at the close of the summer monsoon, the seat of the average minimum is transferred from the east to the west coast of India. This change does not take place *per saltum*, but gradually amid many oscillations, the westerly current retreating, while the easterly current advances; and its position determines, for the time being, the region of most frequent rainfall. Hence, although, at Hyderabad, for instance, easterly winds are far more frequent and steady in October than in September, the precipitation there is less in the former month than in the latter; but greater at Belgaum. The obstacle to the easterly winds presented by the hills which form the crest of the Western Ghats, has doubtless a considerable influence in increasing the precipitation of those stations that are situated within 30 or 40 miles of the range.

These several influences, operating with different degrees of intensity in different parts of the plateau, and modified also by those of the purely local accidents of the ground, will probably suffice to explain the variations illustrated in the table on pages 28 and 29, which, at first sight, seem somewhat anomalous.

CARNATIC.—The province of the Carnatic, in which, for our purpose, I include all the plains extending below the Eastern Ghats, along the Bay of Bengal, from Cape Comorin to the southern limit of the Godaveri delta, is still more shut off from the influence of the western branch of the monsoon current than the plateau of Mysore and the Deccan; and hence, while the total rainfall from June to September, (*i. e.*, during the height of the summer monsoon), is less even than on the plateau to the westward, we have everywhere, (except in the districts north of Madras), the phenomenon of a double maximum, of which, for reasons presently to be explained, the second is by far the greater. I shall afterwards revert to the subject of this second maximum, the heavy rains of October and November, as a separate branch of my subject. Meantime I give, in the following table, the monthly rainfall of the Carnatic from May to October inclusive, for comparison with those already given for the western and central part of the peninsula; and, in separate columns, the totals of the five months, June to October, and of the four months, June to September; the former being the data adopted for the chart, Plate VII, while the latter exclude the late rainfall of October, which I shall discuss subsequently as that of the season of transition to the winter monsoon. The rainfall of May is excluded from both totals, as being that of the pre-monsoon period. It is shown in the monthly columns, to illustrate the course of variation.

*Summer Rainfall of the Carnatic.*

| Appendix Number. | Stations. | Elevation in feet. | Inches of rainfall. | | | | | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | May. | June. | July. | August. | Sept. | October. | June to Sept. only. | June to October. |
| 398 | Tinnevelly | 119 | 1·63 | 0·69 | 0·31 | 0·57 | 0·87 | 6·07 | 2·44 | 8·51 |
| 397 | Tuticorin | 20 | 0·94 | 0·13 | 0·21 | 0·37 | 0·50 | 3·40 | 1·21 | 4·61 |
| 396 | Satur | 350 | 2·14 | 0·51 | 0·92 | 1·45 | 1·67 | 5·69 | 4·55 | 10·24 |

*Summer Rainfall of the Carnatic*—continued.

| Appendix Number. | Stations. | Elevation in feet. | Inches of rainfall. | | | | | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | May. | June. | July. | August. | Sept. | October. | June to Sept. only. | June to October. |
| 395 | Vattanum | 20 ? | 1·58 | 0·74 | 0·83 | 2·02 | 3·89 | 6·26 | 5·48 | 11·74 |
| 394(a) | Madura | 448 | 2·72 | 1·52 | 1·59 | 4·67 | 4·39 | 8·88 | 12·17 | 21·05 |
| 393 | Periyakulam | 910 | 2·83 | 1·07 | 0·69 | 1·87 | 2·33 | 6·18 | 5·96 | 12·14 |
| 392 | Dindigul | 700 | 3·13 | 1·59 | 1·59 | 2·25 | 2·86 | 6·20 | 8·29 | 14·49 |
| 386 | Negapatam | 15 | 1·79 | 1·18 | 1·27 | 3·33 | 3·84 | 7·96 | 9·62 | 17·58 |
| 387 | Tanjore | 364 | 1·63 | 1·22 | 1·78 | 3·99 | 4·22 | 5·60 | 11·21 | 16·81 |
| 389 | Trichinopoly | 275 | 3·58 | 1·31 | 2·16 | 4·43 | 5·56 | 7·86 | 13·46 | 21·32 |
| 390 | Karur | 380 | 3·93 | 1·37 | 1·35 | 3·32 | 3·49 | 6·14 | 9·53 | 15·67 |
| 391 | Coimbatore | 1,348 | 2·58 | 1·79 | 1·35 | 1·23 | 1·23 | 5·90 | 5·60 | 11·50 |
| 385 | Tranquebar | 20 | 1·59 | 1·14 | 2·05 | 3·98 | 3·77 | 9·23 | 10·94 | 20·17 |
| 384 | Kumbakonam | 40 | 1·87 | 2·03 | 2·41 | 4·38 | 4·56 | 8·26 | 13·38 | 21·64 |
| 380 | Udayarpalaiyam | 150 | 3·23 | 1·76 | 2·88 | 5·05 | 4·65 | 7·26 | 14·34 | 21·60 |
| 378 | Vriddhachalam | 300 | 1·91 | 1·34 | 2·70 | 5·02 | 4·85 | 5·92 | 13·91 | 19·83 |
| 377 | Atur | 850 | 4·58 | 1·32 | 2·87 | 3·94 | 5·29 | 7·67 | 13·42 | 21·09 |
| 382 | Salem | 940 | 4·53 | 3·13 | 3·94 | 5·78 | 6·08 | 7·22 | 18·93 | 26·15 |
| 379 | Cuddalore | 20 | 1·43 | 1·30 | 2·26 | 4·67 | 4·65 | 7·75 | 12·88 | 20·63 |
| 374 | Tindivanam | 400 | 2·61 | 2·00 | 3·01 | 6·84 | 6·44 | 7·87 | 18·29 | 26·16 |
| 376 | Tirupatur | 2,700 | 5·77 | 2·67 | 3·89 | 5·21 | 7·17 | 6·86 | 18·94 | 25·80 |
| 373 | Chingleput | 150 | 1·60 | 2·06 | 3·14 | 4·60 | 5·10 | 6·78 | 14·90 | 21·68 |
| 372 | Conjeeveram | 250 | 2·02 | 2·18 | 4·09 | 6·06 | 6·10 | 6·58 | 18·43 | 25·01 |
| 370 | Arcot | 558 | 2·58 | 2·36 | 3·42 | 6·11 | 5·32 | 5·39 | 17·21 | 22·60 |
| 369 | Vellore | 676 | 2·94 | 2·44 | 3·39 | 5·41 | 5·50 | 6·74 | 16·74 | 23·48 |
| 368 | Palmaner | 2,214 | 2·75 | 2·38 | 2·72 | 4·74 | 5·20 | 6·10 | 15·04 | 21·14 |
| 367 | Chittoor | 1,112 | 3·44 | 2·31 | 2·98 | 5·68 | 6·17 | 6·57 | 17·14 | 23·71 |
| 371 | Madras | 22 | 2·24 | 2·02 | 3·82 | 4·51 | 4·74 | 10·80 | 15·09 | 25·89 |
| 356 | Nellore | 20 | 1·35 | 1·58 | 2·24 | 3·17 | 3·16 | 9·84 | 10·15 | 19·99 |
| 355 | Udayagiri | 1,250 | 1·97 | 1·47 | 1·61 | 2·12 | 2·59 | 8·24 | 7·79 | 16·03 |
| 353 | Ongole | 200 | 1·84 | 1·80 | 2·98 | 3·95 | 5·26 | 8·59 | 13·99 | 22·58 |
| 354 | Cumbum | 1,750 | 2·07 | 2·33 | 3·01 | 2·97 | 4·16 | 5·58 | 12·47 | 18·05 |
| 352 | Vinukonda | 700 | 1·44 | 2·47 | 2·49 | 4·20 | 4·44 | 6·24 | 13·60 | 19·84 |
| 350 | Masulipatam | 16 | 1·75 | 4·12 | 5·53 | 5·65 | 6·64 | 8·58 | 21·94 | 30·52 |
| 351 | Guntur | 400 | 1·77 | 3·44 | 4·60 | 6·38 | 5·81 | 6·91 | 20·23 | 27·14 |
| 349 | Ellore | 78 | 1·56 | 3·90 | 5·40 | 6·38 | 7·55 | 6·05 | 23·23 | 29·28 |
| 348 | Rajahmundry | 68 | 3·16 | 4·30 | 6·97 | 6·24 | 7·08 | 6·40 | 24·59 | 30·99 |

The total rainfall of the five months, and equally so that of the four months, is at a minimum in the extreme south of the province, on the east coast, (Tuticorin). It increases

northward steadily to the neighbourhood of Madras; then again decreases on the comparatively narrow plain that extends along the foot of the Nullamullay hills, and at the Godaver delta, where the trend of the coast changes from north to north-east, undergoes a sudden increase. Less pronounced, but still very distinct, if we omit the October rainfall, is the increase from the coast towards the interior. Thus, at Tuticorin, the fall is little more than half that of Tinnevelly; that of Negapatam is less than that of Tanjore; and this again less than that of Trichinopoly. Similarly, Tranquebar and Udayarpalaiyam, Cuddalore and Vriddhachalam, and Madras and Arcot, all show an increase from the coast inwards.

This latter peculiarity of distribution characterizes the rainfall of the month of May, in a still more striking degree. The heaviest rainfall of the month is at Tirupatur, Atur, and Salem; while next to these, and not very far behind, come Karur, Trichinopoly, and Udayarpalaiyam; also Dindigal to the south, and Chittoor in the north. Now Tirupatur is between the Javadi hills and the Eastern Ghats; Atur and Salem at the opposite ends of a narrow pass between other and similar group of hills, from 3,000 to 5,000 feet in height, which stand out detached in front of the Eastern Ghats; and the other stations, with the highest rainfall, are all situated within 20 miles or less of these hills, or of similar groups to the south and north respectively. Of their influence in increasing the local rainfall, I can speak from personal experience, when engaged in the geological survey of that part of the country in 1858—60. In the months of March, April, and May, a bank of cloud, more or less dense, was formed almost daily above the hills between Trichinopoly and Salem, while the flat country to the eastward was quite clear of cloud; and little storms were much more frequent in the neighbourhood of the hills than in that of the sea-coast. This influence operates, in a minor degree, throughout the subsequent months, during the prevalence of the westerly winds; but in October, when east and north-east winds predominate on the coast, the rainfall on the coast line is heavier than in the interior. The probable cause of this has already been noticed at page 26.

The hill groups, just noticed, lie to the east of the Cauvery, where the river follows a north to south course, after descending from the table-land of Mysore. The undulating plain, here traversed by the river, which lies between the hills above mentioned and the Nilgiris and Eastern Ghats, at a level of between 800 and 2,000 feet above the sea, is a comparatively dry tract, represented in the table by the station of Coimbatore. The rainfall here does not exceed 11½ inches, on the average of the five months, and is only 5·6 inches on that of the four months of the westerly monsoon. The fact of its being surrounded on three sides, or nearly so, by hills, (and indeed on the remaining side, the south, it is shut in to a great extent by the lofty Anamallies, which rival the Nilgiris in height,) sufficiently explains the lowness of its rainfall.

The driest tract in the Carnatic is the coast of Tinnevelly, (represented by Tuticorin), where the total rainfall of the four months, from June to September, does not amount to 1½ inches. The rainfall of this part of the plain is always scanty and uncertain; and no part of the Madras Presidency has suffered more frequently from the failure of the crops. Lying under the lea of the lofty hills of Travancore, it is completely cut off from the rainfall of the westerly monsoon; while, on the east, it is separated only by the Gulf of Manaar from the northern part of Ceylon, which takes off much of the rain that would otherwise be brought to it by easterly winds.

Less easy to account for is the comparative aridity of the northern districts of the Carnatic, represented by the stations Nellore and Udayagiri, the rainfall of which, during the summer monsoon, is little more than from half to two-thirds of that of Madras. Apparently, a combination of unfavourable conditions contribute to this result. Like other parts of the Carnatic plain, the districts of Nellore and Ongole lie under the lee of the Eastern Ghats; but the highest hills of this part of the range are the southern portion, which, to the north of Madras, advance to within a short distance of the coast; so that the plain of Nellore, comprised between the coast and the retreating and lower portion of the range, is, in a great measure, deprived of any rain that might be brought by south winds. Added to which, the rocks forming the range are unfavourable to vegetation and allow of little local evaporation; while the hills are of insufficient height to determine the condensation of clouds, as do the loftier hills of Salem and Arcot. The station of Cuddapah, situated between the ranges, is notoriously one of the hottest and driest in the Presidency of Madras.

ORISSA AND NORTHERN CIRCARS.—The tract, from which the heavy rains of the summer monsoon are practically withheld, terminates at the mouth of the Kistna; indeed, at the point where the direction of the coast line changes from north to north-east about midway between Ongole and Masulipatam; and both the valley of the Godaveri which leads off to the north-west, and the narrow plain which extends between the Eastern Ghats and the coast, up to the Chilka lake and Orissa, receives a considerable amount of rain from winds which are diverted towards the interior during the height of the monsoon. Such is doubtless, also, the case on the wild hilly tract that intervenes between the Godaveri valley and the Eastern Ghats; but it is only within the last year or two that we have rainfall registers from this little known region, and they suffice only to show that the annual distribution of the rainfall is not very different from that of the middle part of the Godaveri valley. The following is a table of the rainfall, at stations on the plain below the Eastern Ghats, and chiefly on the coast, from the mouth of the Godaveri to that of the Hooghly, during the five months, June to October.

*Summer Rainfall of the Northern Circars and Orissa.*

| Appendix Numbers. | Stations. | Elevation in feet. | Inches of rainfall. | | | | | Total. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | June to September. | June to October. |
| 347 | Cocanada | 20 | 3·96 | 5·17 | 5·09 | 6·45 | 8·60 | 20·67 | 29·27 |
| 346 | Narsapatnam | 1,500 | 4·69 | 4·78 | 5·47 | 8·27 | 8·28 | 23·21 | 31·49 |
| 345 | Vizagapatam | 31 | 4·59 | 4·84 | 6·12 | 7·27 | 10·93 | 22·82 | 33·75 |
| 344 | Bimlipatam | 30 | 3·22 | 3·64 | 4·04 | 6·25 | 8·01 | 17·15 | 25·16 |
| 343 | Vizianagrum | 40 | 4·30 | 5·03 | 6·29 | 7·19 | 8·16 | 22·81 | 30·97 |
| 342 | Ganjam | 40 | 5·61 | 5·13 | 5·88 | 8·79 | 9·18 | 25·41 | 34·59 |
| 341(a) | Aska | 609 | 5·97 | 6·76 | 8·82 | 8·55 | 6·79 | 30·10 | 36·89 |
| 210 | Pooree | 15 | 8·22 | 10·40 | 11·37 | 9·93 | 8·14 | 39·92 | 48·06 |
| 209 | False Point | 15 | 10·17 | 14·38 | 14·51 | 11·12 | 10·91 | 50·18 | 61·09 |
| 208 | Cuttack | 80 | 10·30 | 12·77 | 11·41 | 9·71 | 5·79 | 44·19 | 49·98 |
| 206 | Balasore | 90 | 9·92 | 11·61 | 12·53 | 12·55 | 7·21 | 46·61 | 53·82 |

The average rainfall of the five months increases from about 30 inches in the extreme south to nearly double that amount at the mouth of the Hooghly; being, as a rule, higher on the coast line than in the interior; and varying considerably, as it appears, with the local accidents of the coast. The rainfall of Bimlipatam is somewhat remarkably below that of other stations, the reason of which I am unable to suggest. But Vizagapatam is clearly more exposed by position than Coconada, Pooree than Ganjam, and False Point than either; and in each of these cases the more exposed station shows a largely increased rainfall.

The increased rainfall of the more northerly stations, as compared with the more southerly, and that of the province as a whole, as compared with the Carnatic, is due almost entirely to that of the four months (June to September), excepting at Vizagapatam and False Point. That of October is not appreciably greater than on the coast of the Carnatic. On the other hand, the rainfall of the remaining months increases rapidly in passing from the Northern Circars to Orissa; and this is more especially the case in July and August, when the monsoon attains the greatest strength. While, therefore, in the Northern Circars (from Ganjam southwards), the rainfall increases more or less steadily up to a single maximum in October, as we have seen to be the case also in the Carnatic; at the Orissa stations, it attains its maximum either in July or August; and False Point exhibits a double maximum, the firstin July, the second in October.

The heaviest falls of rain in Orissa are those which accompany the passage of little cyclones, which, in certain years, are formed repeatedly during the summer monsoon, and more especially in August and September, over the head of the Bay of Bengal; thence travelling westwards, across Orissa, to the Central Provinces and Central India, or occasionally, on a north-westerly course, towards Benares and Allahabad. The winds in these little storms are far from violent, at least on the land, but they are sometimes accompanied with excessive falls of rain; *e.g.*, on the 16th September 1880, when upwards of 20 inches were registered in 24 hours at Chandbally, a station on the coast to the north of False Point, and upwards of 8 and 9 inches respectively at False Point and Cuttack.

CENTRAL PROVINCES SOUTH.—To the west of Orissa, lies the hilly country known as the Tributary Mehals of Cuttack, in which, until a few years ago, rainfall registers were entirely wanting. It is drained by the Mahanadi and its tributaries, and in part by some smaller streams, such as the Brahmani and the Subarnrekha, which, like the Mahanadi, discharge themselves on the coast of Orissa. The tract is one of much interest in its hydraulic features, owing to the remarkable volume and rapid discharge of the floods, to which the Mahanadi is liable after heavy rain in the interior. Of the disastrous results of some of these in the deltaic tract of Orissa, some notices will be found in the Journal of the Asiatic Society of Bengal. This hilly and jungle-clad country extends northwards to Chutia Nagpur; and, on the south, runs up into the plateau of Jeypore and the hills of Bastar. On the west, it stretches well into the Central Provinces, but includes some extensive fertile plains, especially that which surrounds Raipur. From the basin of the Mahanadi, a low water-shed is crossed to the plains drained by the tributaries of the Godaveri, within which lies Nagpur; and both these river systems originate, on the north, in the range of broken table-lands and hills, which are now frequently spoken of as the Satpura range, and which run across India from the Gulf of Cambay to Chutia Nagpur and the plateau to the west of the Gangetic delta. It is the country to the south

of this range, between Berar on the west and the Tributary Mehals of Orissa on the east, together with a portion of the range itself, which is here designated as the Central Provinces South. Its average rainfall is comparatively high, being little under 50 inches, of which by far the greater part falls during the height of the summer monsoon.

*Summer Rainfall of the Central Provinces South.*

A.—STATIONS SOUTH OF THE SATPURAS.

| Appendix Number. | Stations. | Elevation in feet. | Inches of rainfall. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total June to October. |
| 240 | Sambalpur | 451 | 13·10 | 17·68 | 15·54 | 8·21 | 2·52 | 57·05 |
| 239 | Saragaon | 800 | 7·47 | 17·54 | 11·27 | 8·77 | 1·43 | 46·48 |
| 238 | Bilaspur | 850 | 9·07 | 13·25 | 11·59 | 7·48 | 1·72 | 43·11 |
| 241 | Raipur | 960 | 9·67 | 13·80 | 12·65 | 7·79 | 1·76 | 45·67 |
| 242 | Dhamtari | 1,250 | 8·23 | 14·82 | 10·12 | 7·40 | 2·18 | 42·75 |
| 243 | Bhandara | 854 | 8·40 | 16·71 | 12·76 | 9·46 | 1·60 | 48·93 |
| 248 | Brahmapuri | 700 | 8·70 | 18·16 | 12·48 | 9·69 | 2·14 | 51·17 |
| 249 | Chanda | 652 | 6·81 | 14·54 | 11·62 | 8·80 | 2·52 | 44·29 |
| 250 | Sironcha | 401 | 6·80 | 12·37 | 10·81 | 8·66 | 2·42 | 41·06 |
| 247 | Hinganghat | 800 | 6·70 | 13·82 | 8·54 | 7·45 | 2·11 | 38·62 |
| 246 | Wardha | 800 | 6·69 | 12·14 | 9·24 | 8·06 | 2·96 | 38·19 |
| 245 | Arvi | 1,200 | 5·88 | 8·82 | 7·90 | 7·92 | 1·78 | 32·25 |
| 244 | Nagpur | 1,025 | 8·99 | 12·94 | 8·82 | 7·92 | 2·15 | 40·82 |
| 237 | Burha (Balaghat) | 1,040 | 12·50 | 22·33 | 16·69 | 9·51 | 1·38 | 62·41 |

The rainfall of this tract, except on its western margin, where it is conterminous with Berar, is then almost as great as that of Orissa; and, like the latter, has its maximum in July. It receives rain from both coasts; but, as may be seen from the table at page 18, (Nagpur, Chanda, Sironcha,) the prevailing winds are westerly; the mean position of the barometric axis of low pressure being to the north of the Satpura range; but it is prolonged to the south-east between Raipur and Sambalpur. The high rainfall is, doubtless, partly due to the hilly character of the country, and also to the fact that it lies immediately to the south, or even in the track so frequently followed by the cyclonic storms, already referred to at page 23; but principally to the fact that, it either coincides with, or is on the margin of the barometric trough, in which the two branches of the monsoon meet; and over which, therefore, the convective ascent of the air is most active. Indeed the cyclonic storms, to which I have just referred, are merely a particular phase of this action. The Satpura chain, which, as already observed, bounds it on the north, has a higher rainfall than the lower plains, as is shown by the station of Balaghat in the above table, and is further illustrated by the following table, which includes one station (Chikalda) to the north of Berar. Of the others, Pachmarhi is on the plateau of the Mahadeva or Pachmarhi hills; Seoni on the rolling surface of a lower table-land; and Mandla to the north of the

watershed in the drainage of the Nerbudda. Betul and Chhindwara are in valleys in the range:—

B.—STATIONS ON THE SATPURA RANGE.

| Appendix Number. | Stations. | Elevation in feet. | Inches of rainfall. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total June to October. |
| 251 | Chikalda | 3,656 | 11·75 | 16·71 | 15·56 | 12·56 | 4·32 | 60·90 |
| 233 | Badnur (Betul) | 2,189 | 7·63 | 13·26 | 8·93 | 7·83 | 1·69 | 39·34 |
| 232 | Pachmarhi | 3,504 | 9·98 | 29·11 | 19·17 | 15·15 | 1·63 | 75·04 |
| 234 | Chhindwara | 2,236 | 10·24 | 12·05 | 8·52 | 8·44 | 2·09 | 41·34 |
| 235 | Seoni | 2,030 | 9·73 | 14·82 | 10·86 | 7·95 | 2·07 | 45·43 |
| 236 | Mandla | 1,487 | 9·07 | 18·38 | 11·86 | 6·55 | 1·38 | 47·24 |

CHUTIA NAGPORE AND WESTERN BENGAL.—We are now fairly within the region of the high rainfall of the summer monsoon, which is determined by the axis of minimum pressure; towards which the two branches of the monsoon blow from the opposite coasts as has already been shown in the wind table on page 19 and at page 23 of this preliminary description. The highlands of Chutia Nagpur and Western Bengal are a virtual prolongation of the Satpura range, and are of the same general character; but the hilly jungle-clad country widens out to the east of the Son river; and while, on the south, it passes into that already described as forming the Tributary Mehals of Orissa, on the north it extends to the bank of the Ganges, terminating at the angle formed by the southward bend of the river in the low broken range of the Rajmehal hills. In the interval between the Gangetic delta and the Son, it forms a low plateau dotted over with hills, some of which, as Parasnath, attain an altitude of nearly 4,500 feet; and, at certain points, as at Hazaribagh and Ranchee, rising as a table-land to 2,000 feet above the sea-level. Much of this region is still covered with forest, but of late years clearings have extended widely, and that portion, which is traversed by the railway from Calcutta to Benares, exhibits but little of the wild picturesque character which distinguished it a quarter of a century ago.

In the following list of stations, Dudhi, in South Mirzapur, is the most westerly, and Godda and Nya-Doomka the most easterly. Bhagalpur is at the northern extremity of the tract on the bank of the Ganges.

*Summer Rainfall of Chutia Nagpur and Western Bengal.*

| Appendix Number. | Stations. | Elevation in feet. | Inches of rainfall. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total June to October. |
| 105 | Dudhi | 1,000 ? | 4·94 | 10·67 | 13·19 | 6·13 | 3·41 | 38·34 |
| 171 | Palamow | 1,200 | 6·20 | 13·11 | 11·56 | 7·33 | 2·45 | 40·65 |
| 173 | Ranchee | 2,169 | 7·50 | 12·12 | 11·75 | 8·12 | 3·15 | 42·64 |
| 172 | Hazaribagh | 2,010 | 8·23 | 12·92 | 12·48 | 7·80 | 3·21 | 44·64 |
| 176 | Chybassa | 746 | 8·41 | 14·31 | 14·06 | 8·89 | 3·14 | 48·81 |
| 177 | Purulia | 800 | 9·28 | 11·04 | 12·53 | 7·64 | 3·89 | 44·38 |
| 175 | Gobindpur | 800 | 8·22 | 12·79 | 13·25 | 7·02 | 4·35 | 45·63 |
| 174 | Nya-Doomka | 120 | 9·91 | 13·65 | 13·88 | 9·61 | 4·60 | 51·65 |
| 158 | Godda | 200 | 7·43 | 11·28 | 11·91 | 9·86 | 3·05 | 43·53 |
| 157 | Bhagalpur | 159 | 8·27 | 11·16 | 10·70 | 7·23 | 4·20 | 62·41 |

Apparently, the rainfall of this tract does not greatly exceed that of the Satpura tract further west; but none of the stations are so elevated as Chikalda and Pachmarhi in the latter list, and therefore the registers are not strictly comparable. On the other hand, there is an appreciable increase of the rainfall from the more westerly to the more easterly stations, which is perhaps most clearly indicated in the months of June and October. Now the rainfall of the early part of June is brought by the sea winds from the Bay of Bengal. That of October also comes from the eastward, when the monsoon wind is recurving and blowing, frequently as a north-east wind, on the Orissa coast. But, as the wind table of Hazaribagh on page 19 shows, during the height of the summer monsoon, westerly winds are almost as frequent at this station as those from the eastward; and, at stations to the south of Hazaribagh, westerly winds predominate. As a whole, therefore, this region forms a part of the tract of low relative mean pressure, which is the meeting place of the easterly and westerly branches of the summer monsoon.

LOWER BENGAL.—In this division are included all the stations, situated in the alluvial tract of the Gangetic delta, as far eastward as the Megna and the old course of the Brahmaputra, after its exit from the Assam valley. It lies fairly in the sweep of that branch of the summer monsoon which blows up the Bay of Bengal and meets the coast line nearly at right angles. The lower stratum of the current then curves towards the north-west and west, being hemmed in on the east by the hills of Tipperah and those of the Khasi and Garo group, and on the north by the Himalaya. The following list begins with the most south-westerly stations, and the remainder follow in order, as nearly as they can be arranged serially, from west to east, and in groups from south to north :—

*Summer Rainfall of Lower Bengal.*

| Appendix Number. | Stations. | Elevation in feet. | Excess of Rainfall. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total June to October. |
| 193 | Saugor Island | 6 | 11·43 | 15·64 | 15·73 | 11·98 | 9·49 | 64·27 |
| 183 | Midnapore | 120 | 10·37 | 11·33 | 11·51 | 8·41 | 5·28 | 46·90 |
| 184 | Tumlook | 15 | 8·88 | 11·80 | 13·23 | 8·06 | 4·97 | 46·94 |
| 192(a) | Calcutta | 18 | 11·77 | 12·96 | 13·94 | 9·92 | 5·42 | 54·01 |
| 181 | Hooghly | 31 | 10·49 | 11·86 | 12·34 | 7·83 | 4·20 | 46·72 |
| 189 | Busseerhat | 20 | 10·51 | 12·86 | 12·43 | 8·19 | 4·43 | 48·42 |
| 190 | Khoolna | 15 | 12·31 | 12·04 | 12·65 | 9·09 | 4·52 | 50·61 |
| 191 | Burrisal | 18 | 17·25 | 16·68 | 13·17 | 11·06 | 4·45 | 62·61 |
| 179 | Bankoora | 150 | 9·92 | 12·62 | 11·64 | 8·78 | 4·67 | 47·63 |
| 180 | Burdwan | 99 | 10·04 | 12·42 | 12·33 | 7·90 | 4·92 | 47·61 |
| 186 | Kishnaghur | 46 | 9·84 | 10·12 | 11·10 | 7·36 | 4·68 | 43·10 |
| 188 | Jessore | 33 | 13·30 | 11·44 | 11·62 | 8·92 | 5·76 | 51·04 |

*Summer Rainfall of Lower Bengal.*—continued.

| Appendix Number. | Stations. | Elevation in feet. | Inches of Rainfall. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total June to October. |
| 178 | Soory | 180 | 10·54 | 12·72 | 12·97 | 9·36 | 3·73 | 49·32 |
| 185 | Berhampore | 66 | 9·95 | 10·39 | 10·70 | 9·47 | 5·46 | 45·97 |
| 170 | Pubna | 25 | 12·24 | 10·73 | 13·06 | 10·91 | 4·67 | 51·61 |
| 187 | Furreedpore | 20 | 13·30 | 12·94 | 12·38 | 9·92 | 4·55 | 53·09 |
| 197 | Dacca | 15 | 13·25 | 12·93 | 12·38 | 10·19 | 5·40 | 54·15 |
| 169 | Rampore Bauleah | 35 | 10·90 | 11·64 | 10·97 | 10·88 | 5·16 | 49·55 |
| 196 | Atia | 35 | 14·39 | 11·33 | 12·48 | 10·40 | 5·12 | 53·72 |
| 167 | Maldah | 100 | 10·92 | 10·60 | 9·92 | 10·53 | 4·34 | 45·41 |
| 168 | Bogra | 77 | 15·29 | 16·75 | 12·98 | 12·08 | 5·05 | 62·15 |
| 194 | Mymensingh | 60 | 20·82 | 17·26 | 14·96 | 14·30 | 5·51 | 72·85 |
| 156 | Purneah | 125 | 11·92 | 14·08 | 14·16 | 14·32 | 3·96 | 58·44 |
| 166 | Dinagepore | 120 | 17·58 | 15·20 | 13·38 | 12·83 | 5·15 | 64·14 |
| 165 | Rungpore | 120 | 21·45 | 16·79 | 13·12 | 13·16 | 5·20 | 69·72 |

Here it may first be observed that the stations with the lowest rainfall are those lying on the western margin of the alluvial tract, *viz.*, Midnapore, Tumlook, Hooghly, Bankoora, Burdwan, Soory, Kishnaghur, Berhampore, and Maldah, which, although north of the river, is also near the western margin. But even these stations have, as a rule, a higher rainfall than those on the high ground to the westward, notwithstanding their inferior elevation. Stations in the east of the delta have, in all cases, a higher rainfall than those in the west; as may be seen on comparing Burrisal with Calcutta, Furreedpore or Dacca with Berhampore, Mymensingh with Bogra, and both with Rampore Bauleah and Maldah. There is thus indicated a graduated increase from west to east, which is more rapid in the north than in the south. In passing from south to north, we find that the rainfall is higher on and near the coast, than at stations somewhat further inland, Thus Saugor Island has 64·3 inches, while Calcutta has only 54·0 inches, Hooghly 46·7, and Kishnaghur 43·1. Again, Burrisal has 62·6, while Dacca has but 54·1 inches. This is a second illustration of the law, which has been already noticed in the case of the October rainfall of the Carnatic, and which was also referred to in explanation of the high rainfall of the west coast of the peninsula. Where the vapour-bearing wind blows directly on the coast or at a high angle to its trend, the check to its free movement, produced by the increased friction of the land surface, tends to cause eddies, which compel a partial ascent of the air and therefore an increased precipitation.

It will be seen, hereafter, that in May, when the chief precipitation is that which takes place in afternoon storms, the higher rainfall in both the above cases is at the inland station; and it is not until the monsoon has fairly set in, that the influence of maritime situation becomes manifested.

On proceeding further north, the influence of the hills begins to display itself in producing a rapid increase of precipitation. Thus Dacca, about 100 miles from the south

foot of the Garo hills, has 54·1 inches; while Mymensingh, less than 30 miles from the hills, has 72·1 inches; Rampore Bauleah, which is at about the same distance as Dacca, but to the south-west of the hills, has a fall of 49·5 inches in the five months enumerated in the table; while Bogra, 60 miles nearer, has a fall of 62·1 inches; and Rungpore, which is about the same distance as Bogra from the Garo hills, but 70 miles nearer to the Himalaya, has as much as 69·7 inches in the same period. In all these cases, the greatest differences are shown in the earlier months of the monsoon; and the effect disappears in October, when proximity to the coast becomes most influential.

In June, Mymensingh and Rungpore have the highest rainfall; that of Mymensingh being 21 per cent. greater than that of Burrisal, 82 per cent. greater than that of Saugor Island, and more than double that of Soory. On the other hand, in October, the highest rainfall is that of Saugor Island, that of Mymensingh and Rungpore being little more than half as much. The higher rainfall of easterly as compared with westerly stations is, however, maintained throughout.

EASTERN BENGAL, CACHAR, AND ASSAM.—It is within this province that are situated the hills whose influence on the rainfall of Bengal has just been traced in the foregoing paragraphs; and here, accordingly, that influence culminates, and manifests itself in a discharge along the south face of the Garo and Khasi hills, which apparently exceeds even that of the Western Ghats. But, apart from this feature, the distribution of the rainfall in Eastern Bengal, Cachar, and Assam, presents much that challenges our interest. Although, regarded as a whole, the province is distinguished by a copious rainfall, it exhibits considerable variations, and there are certain tracts where the precipitation, though still considerable, is by no means excessive. It will be instructive to endeavour to trace these variations to the physical features of the country. Again, a remarkable characteristic of this province is the much earlier period at which heavy rain sets in, as compared with the deltaic tract to the west; a peculiarity of high economic importance, since it is this which peculiarly fits Assam for being the principal seat of tea cultivation. It will suffice here to indicate this feature: its probable cause will be more fitly discussed in connection with the spring rains.

The province here considered includes, first, the low hill tract of Tipperah, which, to the east and south-east, runs up into the higher hills of South Cachar and the Chittagong hill tracts. Next, to the north of these, the low alluvial flat of Sylhet, which separates the Tipperah hills from the Garo and Khasi hill group, and, to the east, extends to within a short distance of Silchar. Long, low ridges from the hills to the south here intersect the alluvial plain, many parts of which form permanent swamps. The Garo, Khasi and Jaintia hills, with the Naga hills still further east, form a rolling table-land, about 60 miles across from north to south, near its western extremity, and widening somewhat to the eastward. The Khasi hills, the highest portion of the group, average between 4,000 and 5,000 feet, and are crossed by ridges rising to upwards of 6,000 feet; but the Garo hills, to the west, do not average more than about 2,000 feet, and the Jaintia hills, to the east, are also lower. To the north of these hills, again, the valley of Assam, which is an alluvial flat, divided into an eastern and western basin by the encroachment of Mekhir hills, intervenes between these and the Himalaya. Of the stations enumerated in the following table, Noakholly and Comillah are on the alluvial tract east of the Megna, (the estuary of the Brahmaputra); Agartalla in the Tipperah hills; Sylhet and Silchar on the alluvial flat separating these from the Garo and Khasi group: the former within 12 miles

of the southern scarp of the hills, on the crest of which stands Cherra Poonjee; the latter 60 miles to the east, and beyond the first long spur running out from the hills of South Cachar. Tura, Cherra Poonjee, Shillong, and Samagoodting are stations on the hills; the first, situated on the Garo group, being the most westerly: Cherra Poonjee, as already stated, is on the crest of the southern scarp, at an elevation of 4,000 feet, overlooking the plains of Sylhet. It stands on a little plateau of thick-bedded sandstones, bounded on two sides by precipices of 2,000 feet sheer descent, which close in gorges, debouching southwards on the plains. The south-west wind, after sweeping over the inundated alluvial tract, blows up these as well as on the southern face of the general scarp, and, having reached the heads of the gorges, ascends vertically. Thus, Cherra Poonjee in the summer monsoon season is surrounded, or nearly so, by vertically ascending currents of saturated air, the dynamic cooling of which is the cause of the enormous precipitation which has made this place famous. Moreover, it is at the elevation of 4,000 feet, which Mr. Hill finds,[1] in the Himalaya, to be that of maximum precipitation. It is almost certain that the annual average varies greatly in different parts of the station, although the whole extent of the plateau is not much more than a couple of square miles. Some of the earlier registers, which were those of rain-gauges near the centre of the plateau, show a higher precipitation than those kept in recent years further north, and under the lee of a ridge that crowns its western margin.

Shillong, also in the Khasi hills, is only 30 miles to the north of Cherra Poonjee; but three ridges of hills intervene, the highest of which, immediately south of Shillong, rises to more than 6,000 feet. Hence the great diminution of the rainfall. Samagoodting, 120 miles to the eastward, is situated in the Naga hills, in the drainage system of the Dhansiri river, a tributary of the Brahmaputra.

The remaining stations are all situated in the Assam valley: Dhubri, the most westerly, stands on the right bank of the Brahmaputra, about 30 miles below the point where the river debouches from the Assam valley on the plains of Bengal; and Goalpara 30 miles above this point. The other stations succeed in ascending order as follows: Gauhati, Nowgong and Teapur, Sibsagar, Nazira and Dibrugarh.

*Summer Rainfall of Eastern Bengal, Cachar, and Assam.*

| Arrangement Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total June to October. |
| 200 | Noakholly | 50 | 24·86 | 20·74 | 22·44 | 16·89 | 7·48 | 92·41 |
| 198 | Comillah | 60 | 18·49 | 18·35 | 16·47 | 11·40 | 5·28 | 69·99 |
| 199 | Agartalla | 100 | 14·13 | 11·94 | 14·37 | 10·80 | 4·96 | 56·20 |
| 225 | Sylhet | 140 | 32·02 | 25·48 | 25·69 | 20·05 | 8·31 | 111·55 |
| 224 | Silchar | 87 | 19·20 | 20·22 | 17·82 | 13·81 | 6·48 | 77·53 |
| 219 | Tura | 3·943 | 23·14 | 23·79 | 21·27 | 21·24 | 8·79 | 98·23 |
| 221 | Cherra Poonjee | 4,455 | 114·06 | 122·53 | 79·55 | 56·24 | 13·74 | 386·12 |
| 220 | Shillong | 4,792 | 16·85 | 14·02 | 14·93 | 15·44 | 6·48 | 67·72 |
| 222 | Samagoodting | 2,477 | 10·28 | 8·70 | 10·87 | 7·00 | 3·83 | 40·68 |

[1] Indian Met. Memoirs, Vol. I, p. 414.

*Summer Rainfall of Eastern Bengal, Cachar, and Assam*—continued.

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total June to October. |
| 218 | Dhubri | 115 | 27·10 | 15·81 | 11·69 | 12·84 | 4·76 | 72·20 |
| 217 | Goalpara | 386 | 24·72 | 17·08 | 12·78 | 11·95 | 4·87 | 71·40 |
| 216 | Gauhati | 370 | 12·98 | 12·63 | 11·12 | 8·25 | 3·21 | 48·19 |
| 215 | Nowgong | 221 | 13·32 | 16·00 | 14·82 | 10·89 | 4·27 | 59·30 |
| 214 | Tezpur | 303 | 14·05 | 15·89 | 12·87 | 9·63 | 3·02 | 55·46 |
| 212 | Sibsagar | 333 | 14·66 | 15·80 | 16·17 | 11·48 | 5·14 | 63·25 |
| 213 | Nazira | 460 | 13·54 | 15·22 | 16·14 | 10·01 | 4·67 | 59·58 |
| 211 | Dibrugarh | 405 | 18·97 | 19·92 | 18·40 | 14·25 | 6·33 | 77·87 |

Turning our attention, in the first place, to the tract that lies to the south of the Garo-Khasi-hill group, it is to be observed that the decrease of the rainfall from the coast inland, which has already been noticed in Bengal, is also apparent in the above table,—Noakholly having 92·4 inches, while Comillah, 50 miles to the north, has but 70 inches, and Agartalla, 30 miles further inland, has but 56·2 inches. But, on approaching the hill group above referred to, the monsoon rainfall rises at Sylhet to 111½ inches, and culminates at Cherra Poonjee in the enormous precipitation of nearly 400 inches. Again, comparing Noakholly, Comillah, and Sylhet with the more westerly stations, Burrisal, Dacca, and Mymensingh, we find that the increase from west to east, also noticed in Lower Bengal, is here maintained, thus:—

| Westerly Stations. | | Intermediate. | | Eastern Stations. | |
|---|---|---|---|---|---|
| Calcutta | 54·0 inches. | Burrisal | 62·6 inches. | Noakholly | 92·4 inches. |
| Kishnaghur | 43·1 „ | Dacca | 54·1 „ | Comillah | 70·0 „ |
| Maldah | 45·4 „ | Mymensingh | 72·8 „ | Sylhet | 111·5 „ |

To the east of Noakholly and Comillah, we have no stations for comparison; but in the case of Sylhet, the rainfall appears to reach its maximum in this meridian, since, at Silchar, which, as already mentioned, is situated 60 miles further east, the fall has diminished to 77·5 inches: on the hills between Cachar and Assam, it would seem, from a comparison of the rainfall of Tura, Shillong, and Samagoodting, that a similar decrease takes place to the eastward; but the rainfall of stations among hills is so much dependent on peculiarities of local position, that this, although probable on other grounds, cannot be regarded as certain.

In the Assam valley, which lies entirely under the lee of those hills, there is an evident decrease, amounting to nearly one-third of the total fall, from Goalpara to Gauhati; and an increase beyond, which culminates at the highest station, (Dibrugarh); the fall of which is considerably greater than that of Goalpara. Gauhati lies behind the highest part of the range, the Khasi hills; whereas the Garo hills to the south of Goalpara are not more than half the height of the former. With respect to Upper Assam, it is probable that the Dhansiri river affords a comparatively unobstructed passage to the monsoon winds, which blow towards that part of the province, and these tend to increase the rainfall of the upper part of the valley.

Over and above these variations of the total rainfall of the season, the table shows considerable diversity in its distribution in the different months. Thus, June is the month of maximum rainfall at Noakholly, Sylhet, Shillong, Dhubri, and Goalpara. This is also the case at Jessore, Mymensingh, Dinagepore, and Rungpore, in the Bengal province, conspicuously at Mymensingh and Rungpore; but, except at Sylhet, Dhubri, and Goalpara, the predominance of that month is not very striking and decided. At Silchar, Tua, Cherra Poonjee, and at Nowgong, Tezpur, and Dibrugarh, July is the month of the maximum fall; and at Agartalla, Samagoodting, Sibsagar, and Nazira, the greatest fall occurs in August. Some of these differences are doubtless due to the imperfect elimination of non-periodic variations, and would disappear from the means of a much longer series of years. But there is no reason to infer that one characteristic feature of certain stations, *viz.*, the June maximum, is thus delusive. The early culmination of the monsoon rains is only what might be expected from the fact of their early copiousness. The May rainfall varies from $\frac{1}{10}$ to $\frac{1}{5}$ of the total fall of the six months, and on the average of all the stations amounts to about $\frac{1}{7}$; whereas in the Gangetic delta it averages but $\frac{1}{11}$ of the entire monsoon fall, and at some of the more westerly stations is only from $\frac{1}{17}$ to $\frac{1}{14}$ of this total. Again, the rainfall of June, on the average of the whole area, is nearly as great as that of July, and very considerably in excess of that of August or any other month. The stations, at which the June maximum is most conspicuous, are those grouped around the foot of the Khasi and Garo hills.

The rainfall of October, on the other hand, but little exceeds that of the alluvial plain of Bengal, and averages less than half that of May; whereas, in Bengal, the two are very nearly equal; and in the western districts, the October rainfall is the greater.

It will now be of interest to compare these monthly variations of the rainfall with those of the winds. The existing observatories are all indeed situated on the plains, or rather in the valleys; and therefore the local wind directions are necessarily, in a large measure, dependent on the direction of the valleys, and subject to those local influences which, in the proximity of hills, always modify the course of great air currents. Nevertheless, the discussion will not be without interest. For this purpose we have the wind registers of Sibsagar in the upper part of the Assam valley; of Goalpara, 30 miles above the point where the river debouches on the plains of Bengal; and Silchar, the position of which has already been briefly described. We have also the registers of Shillong for a few years, and this station is on the Khasi hills, but under the northern lee of the Shillong ridge, which rises more than 1,000 feet above the station; and finally, I give, for comparison with the above, a summary of the wind registers of Dacca:—

*Monthly Percentage of Winds at Stations in Assam, Cachar, and Eastern Bengal.*

| | Months. | N. | N.-E. | E. | S.-E. | S. | S.-W. | W. | N.-W. | Calm. |
|---|---|---|---|---|---|---|---|---|---|---|
| Sibsagar, 6 years. | May | 15 | 29 | 19 | 5 | 5 | 10 | 7 | 5 | 4 |
| | June | 8 | 20 | 16 | 7 | 11 | 16 | 12 | 8 | 2 |
| | July | 7 | 14 | 11 | 8 | 12 | 21 | 15 | 9 | 3 |
| | August | 7 | 18 | 14 | 6 | 11 | 20 | 15 | 7 | 2 |
| | September | 7 | 22 | 18 | 7 | 7 | 14 | 12 | 7 | 5 |
| | October | 5 | 30 | 29 | 7 | 6 | 7 | 5 | 2 | 9 |

*Monthly Percentage of Winds at Stations in Assam, Cachar, and Eastern Bengal*—continued.

| | Months. | N. | N.-E. | E. | S.-E. | S. | S.-W. | W. | N.-W. | Calm. |
|---|---|---|---|---|---|---|---|---|---|---|
| GOALPARA, 11 YEARS. | May | 4 | 10 | 39 | 9 | 5 | 3 | 6 | 4 | 20 |
| | June | 3 | 9 | 25 | 8 | 6 | 5 | 7 | 6 | 31 |
| | July | 3 | 6 | 24 | 10 | 8 | 7 | 8 | 5 | 29 |
| | August | 3 | 5 | 21 | 11 | 10 | 8 | 11 | 5 | 26 |
| | September | 2 | 6 | 22 | 9 | 6 | 7 | 9 | 5 | 34 |
| | October | 2 | 9 | 34 | 9 | 4 | 4 | 5 | 3 | 30 |
| SILCHAR, 11 YEARS. | May | 7 | 11 | 19 | 9 | 6 | 6 | 12 | 11 | 19 |
| | June | 10 | 12 | 21 | 7 | 6 | 5 | 15 | 9 | 15 |
| | July | 9 | 10 | 18 | 8 | 7 | 9 | 15 | 11 | 14 |
| | August | 7 | 9 | 17 | 7 | 6 | 9 | 16 | 8 | 21 |
| | September | 6 | 8 | 16 | 7 | 7 | 8 | 15 | 10 | 23 |
| | October | 7 | 11 | 16 | 9 | 7 | 7 | 14 | 8 | 21 |
| SHILLONG, 4 YEARS. | May | 6 | 1 | 3 | 3 | 16 | 22 | 10 | 14 | 25 |
| | June | 5 | 1 | 5 | 4 | 20 | 17 | 8 | 8 | 32 |
| | July | 6 | 1 | 6 | 5 | 19 | 16 | 10 | 11 | 26 |
| | August | 4 | 2 | 7 | 4 | 9 | 8 | 13 | 13 | 40 |
| | September | 5 | 1 | 4 | 4 | 10 | 9 | 10 | 11 | 46 |
| | October | 8 | 2 | 6 | 4 | 13 | 10 | 6 | 12 | 39 |
| DACCA, 13 YEARS. | May | 2 | 6 | 9 | 24 | 40 | 10 | 2 | 1 | 6 |
| | June | ... | 2 | 6 | 28 | 48 | 8 | 1 | 1 | 6 |
| | July | ... | 1 | 6 | 34 | 47 | 8 | 1 | ... | 3 |
| | August | 1 | 1 | 5 | 33 | 41 | 10 | 1 | 1 | 7 |
| | September | 2 | 2 | 6 | 24 | 33 | 14 | 2 | 2 | 15 |
| | October | 10 | 9 | 6 | 11 | 13 | 7 | 5 | 12 | 27 |

Taking, in the first instance, the stations in the Assam valley, we find that there is by no means a steady monsoon direction, but that, at Sibsagar, there is a decided preponderance of winds from the two nearly opposite directions, *viz.*, between north-east and east, and between south and west; the latter increasing, at the expense of the former, up to July and August, and then diminishing to proportions which, in October, are about the same as in May. These, in all probability, fairly represent the variation at the upper end of the valley. At Goalpara, east or "down-valley" winds predominate very decidedly throughout the monsoon; but calms are nearly as common; and the only change, during the course of this season, is a slight increase of southerly elements, which attain their maximum in August. Hence, the winds of Assam are, so to speak, a back current of the monsoon, which undoubtedly

blows across the hill range to the south. Shillong, which is on the hills, but, as already mentioned, under the lee of its principal longitudinal ridge, shows, as might perhaps be expected, a very large proportion of calms, greatest in the latter part of the season; and the winds are, for the most part, variable between south and north-west. Those from south and south-west are steadier in May and June than in the subsequent months, and at their minimum in August and September.

At Silchar, again, which is nearly surrounded by hills, there is but little variation from May to October, and no distinct indication of a prevailing monsoon direction, while calms amount to about one-fifth of the observations. Winds from north-east and east on the one hand, and from north-west and west on the other, are about equally frequent, and probably represent the diurnal variation. But at Dacca, which is at a distance from the hills, on the open plain of the Gangetic delta, and surrounded by broad rivers of almost sea-like expanse, there is, throughout the monsoon, a steady prevalent direction between south and south-east; the former decidely preponderating from May, (and even earlier,) up to the end of September.

If we may take the wind systems of Shillong and Sibsagar as affording the best indication of the strengthening and weakening of the south-west wind, as it blows comparatively unimpeded across the hills; and, in spite of the protection afforded to the former by the Shillong ridge, this assumption seems admissible, we may conclude that the greatest rainfall, over the greater part of the province, occurs when south-westerly elements are at their maximum; but later in Upper Assam than in the more southerly and westerly parts of the province; while, at stations around the foot of the Garo and Khasi hills, it is a month earlier than in the latter generally, and precedes therefore the maximum strength of the current, affording perhaps another instance of the law already adverted to, that a variable and unsteady current is accompanied with a heavier rainfall than one which blows steadily overhead.

THE GANGETIC PLAIN, BEHAR, THE NORTH-WESTERN PROVINCES AND OUDH.—Leaving for the moment the maritime belt of the eastern peninsula, I will now turn westwards, and follow the diminishing precipitation over that part of India that lies north of the Satpuras and the tropic, intervening between Bengal and the Western Desert. Much of this tract is the debatable ground of the two branches of the monsoon. Occasionally it is entirely included in the sweep of the one or the other branch; in the height of the rains, (July and August) more frequently that from the Arabian Sea; while, in September, the Bay of Bengal branch more frequently has the mastery; but, on the whole, the former is the more prevalent wind on the high ground south of the Jumna, the latter on the plain to the north of that river and the Ganges. The wind table of Hazaribagh, page 19, shows that, at this station, on one of the highest points of the plateau of Western Bengal, and to the south of the Ganges, easterly and westerly winds are almost exactly in equal proportion; at Sutna, however, on the Bhagelkhand plateau, further west, (same table), west and south-west winds are very decidedly preponderant; while the wind systems of the stations on the Gangetic plain, which are given in Table C, page 20, show an equal preponderance of easterly winds, greatest near the hills and in the lower or eastern part of the plain. Calms are also very frequent.

As the rainfall registers of this tract are more numerous than those for most other parts of India, of equal extent, and moreover, in its main features at least, the scheme of

rainfall distribution is very simple, it will suffice to give here, as illustrating that distribution, a certain selection from the rainfall registers, which are given in full in the Appendix :—

*Summer Rainfall of the Gangetic Plain, Behar, the North-Western Provinces, &c.*

| Appendix Numbers. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total June to October. |
| 148 | Mozufferpore | 179 | 6·76 | 10·84 | 10·20 | 8·15 | 2·94 | 38·89 |
| 147 | Patna | 179 | 7·24 | 10·74 | 9·87 | 7·79 | 2·82 | 38·46 |
| 146 | Arrah | 190 | 6·90 | 12·44 | 10·12 | 8·42 | 2·74 | 40·62 |
| 141 | Motiharee | 217 | 8·14 | 10·68 | 12·50 | 7·89 | 3·75 | 42·96 |
| 98 | Gorakhpur | 256 | 7·64 | 13·30 | 11·85 | 8·71 | 2·85 | 44·35 |
| 99 | Azamgarh | 254 | 5·28 | 11·27 | 9·94 | 7·67 | 2·42 | 36·58 |
| 101 | Ghazipur | 227 | 4·36 | 11·02 | 9·14 | 7·10 | 2·81 | 34·43 |
| 103 | Benares | 267 | 4·77 | 12·99 | 10·90 | 6·38 | 2·00 | 37·04 |
| 94 | Allahabad | 307 | 4·46 | 12·09 | 9·61 | 6·84 | 2·19 | 35·19 |
| 87 | Rae Bareli | 350 | 3·87 | 9·91 | 8·01 | 7·70 | 1·03 | 30·52 |
| 82 | Fyzabad | 329 | 5·27 | 13·34 | 9·86 | 8·09 | 1·57 | 38·13 |
| 80 | Bahraich | 398 | 6·02 | 14·51 | 8·58 | 7·94 | 1·63 | 38·68 |
| 84 | Lucknow | 369 | 4·30 | 10·99 | 10·21 | 7·00 | 1·29 | 33·79 |
| 89 | Cawnpore | 417 | 3·35 | 9·67 | 8·06 | 4·86 | 1·01 | 26·95 |
| 93 | Banda | 414 | 3·90 | 11·74 | 8·77 | 6·04 | 1·18 | 31·63 |
| 92 | Hamirpur | 362 | 4·16 | 11·52 | 8·11 | 5·29 | 0·81 | 29·89 |
| 76 | Etawah | 498 | 2·58 | 8·65 | 7·99 | 4·72 | 1·01 | 24·95 |
| 73 | Mainpuri | 515 | 2·93 | 9·38 | 7·42 | 5·46 | 0·67 | 25·86 |
| 71 | Farrukhabad | 439 | 3·26 | 9·67 | 7·48 | 5·49 | 1·03 | 26·93 |
| 78 | Sitapur | 442 | 5·46 | 11·33 | 9·14 | 6·12 | 1·61 | 33·66 |
| 70 | Shahjahanpur | 507 | 5·35 | 12·34 | 8·44 | 6·95 | 1·16 | 34·24 |
| 68 | Bareilly | 568 | 5·92 | 14·70 | 8·45 | 6·66 | 1·16 | 36·89 |
| 75 | Agra | 555 | 2·75 | 9·69 | 6·33 | 4·35 | 0·33 | 23·45 |
| 64 | Aligarh | 606 | 3·12 | 9·16 | 6·66 | 3·97 | 0·48 | 23·39 |
| 63 | Bulandshahr | 727 | 2·77 | 8·52 | 6·45 | 3·94 | 0·58 | 22·22 |
| 67 | Moradabad | 655 | 5·25 | 14·10 | 9·37 | 5·84 | 0·65 | 35·21 |
| 65 | Rudarpur | 718 | 5·79 | 15·10 | 10·92 | 5·44 | 0·86 | 38·11 |
| 61 | Bijnor | 771 | 4·75 | 10·57 | 9·29 | 5·77 | 0·47 | 30·85 |
| 59 | Roorkee | 887 | 4·99 | 12·66 | 11·56 | 5·00 | 0·63 | 34·84 |
| 58 | Saharanpur | 903 | 4·40 | 12·39 | 9·29 | 3·92 | 0·44 | 30·44 |

A reference to the chart, plate VII, will show that while, on the one hand, there is a steady decrease of rainfall in passing from east to west up the valley, on the other hand, there is a more rapid fall in traversing the valley from north to south, from the foot of the

Himalayas towards the Ganges, (or, above Allahabad, to the axis of the Jumna-Ganges doab). Thus, in ascending the course of the river, we have—

| | |
|---|---|
| Bhagalpur | 41·6 inches |
| Patna | 38·5 „ |
| Allahabad | 35·2 „ |
| Cawnpore | 27·0 „ |
| Agra | 23·4 „ |

and in crossing the valley from the mountain foot—

| | | |
|---|---|---|
| I. | Gorakhpur | 44·3 inches |
| | Azamgarh | 36·6 „ |
| | Ghazipore | 34·4 „ |
| II. | Rudarpur | 38·1 „ |
| | Moradabad | 35·2 „ |
| | Bulandshahr | 22·2 „ |

There are, doubtless, many local irregularities which present exceptions to these laws; such as Patna and Benares, the monsoon rainfall of which, as shown in the table, differs only by 1½ inches; while that of Arrah, situated between them, is higher than either; but a glance at the chart, Plate VII, or, still better, the more detailed chart of the monsoon rainfall of the North-Western Provinces, published in Mr. S. A. Hill's Report on the rainfall of the North-Western Provinces and Oudh,[1] will show that, as a rule, the above generalizations hold good.

Passing to the south of the Ganges, the rainfall increases again, until, on the plateau of Bundelkhand and Rewah, it attains an average exceeding 40 inches. The band of minimum average rainfall broadly coincides with the Jumna-Ganges doab on the west, running a little to the north of the latter river between Cawnpore and Fatehpur, and between Allahabad and Benares. It is, on the whole, the most depressed portion of the plain. This is not quite the case, indeed, between Allahabad and Benares, where, as already remarked, the region of lowest rainfall lies some miles to the north of the river; but here, the high ground of the Bundelkhand plateau advances almost or quite to the bank of the river, bringing its characteristic increase of the rainfall, and pushing northward the axis of minimum precipitation. It would seem, therefore, that the relative elevation of the ground, and more especially the distance from the northern hills on the one hand and the margin of the southern plateau on the other, together with the distance from the sea, are the conditions that determine the copiousness of the fall.

The irregularities, above noticed, are of much interest, and although, doubtless, they will be found subject to some modification when the registers of a much longer period, recorded with more trustworthy gauges, can be brought in evidence, there is one feature about them which is repeated sufficiently often to be perhaps worthy of provisional notice as a normal characteristic of the precipitation.

This is the apparent tendency of the rainfall to increase on the *doabs*, or alluvial plains, intervening between large rivers above their junctions. The increased rainfall of Arrah, already mentioned, is a case in point; that station lying at the northern extremity of

[1] Allahabad, 1879.

a band of relatively high rainfall, (above 40 inches) shown on Mr. Hill's map (above referred to), as extending midway between the Son and Ganges, from Arrah to beyond Sasseram. Another case is that of a band of rainfall, in excess of 40 inches, midway between the Ganges and Gogra, running north-west and south-east over Sultanpur to Jaunpur; and a third is that of two tracts of over 30 inches rainfall around Etawah and Mainpuri, on the Jumna-Ganges doab, midway between those two rivers.

The monsoon rains set in, in the North-Western Provinces, somewhat later than in Bengal, being retarded, in certain seasons, as much as three weeks or even a month; in others not more than a few days.

The following table shows the dates on which monsoon rains began at Calcutta, Allahabad, Agra, and Roorkee, respectively, on each of the last 19 years. For the data of the three latter stations, I am indebted to the kindness of Mr. S. A. Hill,[1] the Meteorological Reporter to the Government of the North-Western Provinces and Oudh :—

*Dates of the setting in of the Monsoon Rains in Bengal and the North-Western Provinces.*

| Year. | Calcutta. | Allahabad. | Agra. | Roorkee. |
|---|---|---|---|---|
| 1865 | 15th June | 9th July | 6th July | 3rd July. |
| 1866 | 15th „ | 9th. „ | 10th „ | 11th „ |
| 1867 | 14th „ | 3rd „ | 6th „ | 15th June. |
| 1868 | 5th „ | 18th „ | 20th „ | 12th July. |
| 1869 | 23rd „ | 29th June | 5th „ | 27th June. |
| 1870 | 16th „ | 20th July | 21st „ | 25th „ |
| 1871 | 5th May | 15th June | 22nd June | 5th „ |
| 1872 | 13th June | 15th „ | 22nd „ | 13th „ |
| 1873 | 13th „ | 8th July | 11th July | 15th July. |
| 1874 | 17th „ | 19th June | 4th „ | 16th June. |
| 1875 | 11th „ | 5th July | 6th „ | 5th July. |
| 1876 | 6th „ | 12th „ | 12th „ | 3rd „ |
| 1877 | 23rd „ | 1st „ | 3rd „ | 1st „ |
| 1878 | 21st „ | 25th June | 21st June | 26th June. |
| 1879 | 14th „ | 20th „ | 24th „ | 17th „ |
| 1880 | 2nd „ | 2nd July | 2nd July | 26th „ |
| 1881 | 2nd „ | 25th June | 9th „ | 27th „ |
| 1882 | 12th „ | 15th „ | 11th June | 11th „ |
| 1883 | 14th „ | 26th „ | 25th „ | 25th „ |

The average rainfall of June varies from 2 to 8 inches, and, like that of the whole season, is heaviest in Behar, least so in the Jumna-Ganges doab; July is almost everywhere the month of the most regular and the heaviest rain; in August the fall is slightly

[1] In a note accompanying this table, Mr. Hill remarks: "The dates are on he whole somewhat later than those given in my report on the rainfall of the North-West Provinces, because, in the latter, I counted the *chota bursut*, or showers which sometimes occur in the early part of June, as part of the regular rains."

less; it diminishes rapidly in September, and, with rare exceptions, ceases at the end of September or in the early part of October; in which latter month the average is but little greater than in May.

The following table, for which as well as that on the previous page I am indebted to Mr. Hill, exhibits the dates on which the monsoon rains ceased at Allahabad, Agra, and Roorkee in each of the last seventeen years:—

*Dates of the cessation of the monsoon rains in the North-Western Provinces.*

| Year. | Allahabad. | Agra. | Roorkee. |
|---|---|---|---|
| 1865 | 16th September | 20th September | 17th September. |
| 1866 | 29th ,, | 23rd ,, | 11th October. |
| 1867 | 22nd October | 2nd October | 1st September. |
| 1868 | 19th September | 17th September | 13th ,, |
| 1869 | 10th October | 9th October | 10th October. |
| 1870 | 30th ,, | 8th September | 27th September. |
| 1871 | 29th September | 13th ,, | 26th ,, |
| 1872 | 29th ,, | 21st ,, | 24th ,, |
| 1873 | 16th ,, | 17th ,, | 18th ,, |
| 1874 | 28th ,, | 11th ,, | 12th ,, |
| 1875 | 21st ,, | 23rd ,, | 27th ,, |
| 1876 | 16th October | 21st ,, | 18th October. |
| 1877 | 9th ,, | 8th October | 9th ,, |
| 1878 | 27th September | 19th September | 23rd September. |
| 1879 | 9th October | 7th October | 12th ,, |
| 1880 | 28th September | 18th ,, | 19th ,, |
| 1881 | 7th October | 17th ,, | 17th ,, |
| 1882 | 1st ,, | 15th September | 15th ,, |
| 1883 | 19th September | 13th ,, | 14th ,, |

SOUTH BEHAR, CENTRAL INDIA STATES AND EASTERN RAJPUTANA.—In the rainfall provinces thus designated, I include the whole of the plateau immediately to the south of the Ganges and Jumna, and also the valley of the Nerbudda river on the southern margin of this plateau and that of the Son river in South Behar. The valley of the Upper Son which bounds its south-eastern margin should also be included, but in this comparatively wild country there were, until lately, no rain-gauge stations, above the point at which it enters on the plain of South Behar. The southern boundary of the whole tract is the range of hills and hilly country which I have throughout spoken of as the Satpuras. On the west, the plateau terminates at the line of the Aravalli range. The Rajputana stations, Bickaneer, Jodhpur, Erinpura, Mount Abu and Pachpadra, will be more fitly considered separately, either in connection with Sind, as representing the desert tract of Western Rajputana, or in connection with Guzerat.

The rainfall of the region, thus defined, is brought almost exclusively by the western branch of the monsoon; excepting, indeed, on the northern and occasionally in the eastern half, where east and north-east winds sometimes prevail during the monsoon season. The prevailing system of winds and its variations in different parts of the plateau are illustrated in the table on page 19 by the stations Sutna, Jubbulpore, Jhansi, Indore and Ajmere. From the Jhansi table, it appears that easterly winds constitute one-third of the observations, while at Sutna they are only 21 per cent., and at Jubbulpore no more than 10 per cent. At Indore they amount to 2, and at Ajmere to about 14 per cent. respectively. Calms are nearly as frequent as on the Gangetic plain; but, in this respect, different stations show much diversity. The following table gives the average monthly rainfall from May to October:—

*Summer Rainfall of the Malwa and Bundelkhand Plateau and the Nerbudda Valley.*

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total, June to October. |
| 151 | Gya | 375 | 6·49 | 11·65 | 9·43 | 6·66 | 2·46 | 36·69 |
| 150 | Sasseram | 260 | 5·54 | 12·46 | 11·32 | 6·53 | 3·63 | 39·48 |
| 104 | Robertsganj | 1,000? | 5·41 | 13·36 | 10·45 | 7·07 | 2·73 | 39·02 |
| 139 | Rewah | 1,043 | 10·02 | 19·25 | 14·64 | 6·79 | 1·85 | 52·55 |
| 138 | Sutna | 1,040 | 6·27 | 15·40 | 10·83 | 5·15 | 1·47 | 39·12 |
| 137 | Nagode | 1100 | 4·91 | 16·47 | 12·13 | 6·79 | 2·22 | 42·52 |
| 136 | Nowgong | 757 | 5·00 | 15·07 | 11·32 | 6·63 | 0·89 | 38·91 |
| 95 | Jhansi | 855 | 4·02 | 13·63 | 10·01 | 5·11 | 0·62 | 33·39 |
| 96 | Lalitpur | 860 | 4·55 | 13·18 | 11·05 | 6·24 | 0·88 | 35·90 |
| 227 | Damoh | 1,385 | 6·07 | 16·40 | 12·71 | 7·31 | 1·35 | 43·84 |
| 226 | Saugor | 1,769 | 6·02 | 16·73 | 11·03 | 7·64 | 1·08 | 42·50 |
| 228 | Jubbulpore | 1,351 | 8·17 | 18·15 | 13·67 | 8·38 | 1·42 | 49·79 |
| 229 | Narsinghpur | 1,000 | 8·05 | 15·32 | 11·89 | 8·54 | 1·47 | 45·27 |
| 230 | Hoshangabad | 1,020 | 6·13 | 15·09 | 12·86 | 10·37 | 0·99 | 45·44 |
| 131 | Bhopal | 1,670 | 6·11 | 18·05 | 11·80 | 9·97 | 1·26 | 47·19 |
| 128 | Goona | 1,617 | 7·00 | 12·01 | 11·01 | 6·03 | 0·27 | 36·32 |
| 127 | Morar | 528 | 2·73 | 10·49 | 9·74 | 6·14 | 0·42 | 29·52 |
| 108 | Bhurtpore | 725 | 1·79 | 8·85 | 7·57 | 4·02 | 0·39 | 22·82 |
| 107 | Ulwur | 1,960 | 3·33 | 8·82 | 7·62 | 4·55 | 1·23 | 25·55 |
| 109 | Jeypore | 1,592 | 3·50 | 9·43 | 5·66 | 2·74 | 0·22 | 21·55 |
| 110 | Sambhar | 1,254 | 1·50 | 7·19 | 5·02 | 3·71 | 0·64 | 18·06 |
| 111 | Ajmere | 1,611 | 2·29 | 7·08 | 7·37 | 3·34 | 0·26 | 20·34 |
| 112 | Nusseerabad | 1,461 | 1·63 | 7·16 | 6·16 | 3·29 | 0·28 | 18·52 |
| 114 | Tonk | 1,468 | 2·27 | 9·52 | 8·30 | 3·25 | 0·97 | 24·31 |
| 115 | Deoli | 1,122 | 4·44 | 11·31 | 10·43 | 5·34 | 0·55 | 32·07 |
| 116 | Shahpura | 1,400 | 2·80 | 6·60 | 6·69 | 5·25 | 0·90 | 22·04 |

*Summer Rainfall of the Malwa and Bundelkhand Plateau and the Nerbudda Valley*—continued.

| Appendix No. 4865. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total, June to October. |
| 120 | Kotah | 920 | 3·03 | 10·43 | 9·03 | 5·85 | 0·58 | 28·92 |
| 121 | Jhalrapatam | 1,242 | 4·08 | 16·51 | 8·68 | 6·88 | 0·49 | 36·64 |
| 130 | Agar | 1,675 | 4·73 | 11·69 | 9·79 | 8·35 | 0·54 | 35·10 |
| 129 | Neemuch | 1,639 | 3·80 | 11·94 | 10·51 | 6·12 | 0·88 | 33·25 |
| 122 | Oodeypore | 2,469 | 2·24 | 8·72 | 5·88 | 7·19 | 0·74 | 24·77 |
| 124 | Kotra | 2,400 | 2·97 | 12·02 | 9·14 | 6·05 | 0·59 | 30·77 |
| 125 | Kherwara | 2,400 | 4·01 | 8·94 | 7·70 | 4·84 | 0·66 | 26·15 |
| 126 | Banswara | 1,500 | 3·58 | 12·89 | 10·71 | 11·06 | 0·41 | 38·65 |
| 132 | Rutlam | 1,563 | 5·72 | 12·51 | 10·83 | 9·79 | 0·78 | 39·63 |
| 133 | Indore | 1,822 | 6·52 | 10·59 | 8·06 | 8·68 | 0·92 | 34·77 |
| 134 | Sirdarpore | 1,900 | 5·48 | 10·51 | 6·57 | 8·22 | 0·69 | 31·47 |
| 135 | Manpur | 1,888 | 6·69 | 12·70 | 8·98 | 10·52 | 0·72 | 39·61 |
| 231 | Khandwa | 1,024 | 6·45 | 10·33 | 7·51 | 6·54 | 1·04 | 31·87 |

The above tables of averages are deduced from very unequal periods, and to this circumstance it is probably, in some measure, due, that the averages of the same months at neighbouring stations, sometimes show considerable discrepancies; but the general features of the distribution of the total monsoon precipitation are nevertheless clearly indicated; as will be best seen on the chart, Plate VII. The highest falls are in the south-east corner of the region, where, at certain stations, they approach 50 inches. At one, indeed, Rewah, the monsoon fall is over 50 inches; but this, like that of Mount Abu in Rajputana, is probably exceptional and local, owing to the elevation and prominence of the station. From the upper valleys of the Nerbudda and Son, the rainfall diminishes in a north-easterly direction to the main stream of the Ganges, in a north-westerly direction to the Aravalli chain and the Western Desert, and, less rapidly, in a westerly direction to Guzerat and the Gulf of Cambay. Inasmuch as the greater part of the precipitated vapour is brought from the Arabian Sea by winds which have the local direction of west or west-south-west, blowing up the valley of the Nerbudda or across the table-land of Malwa and Bundelkhand, the course of the rain-bearing wind is parallel to the Satpura chain, not athwart it; and hence the rainfall immediately north of these hills is not much less than on their southern face.

The cause of the rapid decrease of the rainfall in passing from south-east to north-west is evidently the same that determines the aridity of the desert tract of Western Rajputana, and its consideration may here be deferred. That of the diminution towards the Gangetic valley is probably the same that has already been discussed in describing the rainfall of the Gangetic plain, *viz.*, the distance from the sea and the declining slope of the ground, which, to some extent, causes a descending flow of air and favours dynamic heating and low relative humidity.

The setting in of the monsoon rains, their culmination and cessation, take place on the plateau south of the Gangetic plain, almost at the same time as on the plain itself; and, with very few exceptions, the maximum fall is also in July, and the rains cease towards the middle or latter part of September.

PUNJAB PLAINS.—It has been observed at pages 21 and 22 that, throughout the summer monsoon, the Punjab is the seat of the principal barometric minimum of India, and that it is towards this minimum that both branches of the monsoon tend; the greater portion of both currents, however, being diverted cyclonically towards the trough of only slightly higher pressure, which extends from the Punjab to the south-east, and even to the eastern part of the peninsula. Rain is brought to the Punjab by both branches, *viz.*, the south-west winds of Western Rajputana and Sind, and the south-east winds of the Gangetic plain; but in the north of the Punjab these two streams coalesce, and on the plains, along the foot of the Himalaya, become a south-easterly wind, frequently interrupted by winds from the opposite quarters, as is shown in the wind tables of Delhi, Ludhiana, Lahore and Rawalpindi given at page 21. It is only when and where this south-east wind predominates, that the rainfall is at all regular and copious. To the west of the Indus, in the Derajat, represented by the stations of Dera Ismail Khan and Dera Ghazi Khan, the rainfall of the summer monsoon is rare and slight; and this is the case even at Peshawar and Bannu, lying either within or at the foot of the western hills. The Punjab is, therefore, the common goal of both branches of the Indian monsoon, and with the exception of Sind and Cutch, the rainfall is lower than that of any other province in India. In different parts of the province, the inequality of the monsoon precipitation exceeds that of any other province hitherto treated of, as is shown in the following table:—

*Summer Rainfall on the Punjab Plains.*

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total, June to October. |
| 46 | Gurgaon | 700 | 2·48 | 8·99 | 6·53 | 4·69 | 0·46 | 23·15 |
| 45 | Delhi | 718 | 3·03 | 8·64 | 6·69 | 4·40 | 0·52 | 23·28 |
| 44 | Rohtak | 712 | 2·78 | 5·81 | 4·56 | 2·93 | 0·47 | 16·55 |
| 43 | Hissar | 689 | 1·93 | 4·50 | 3·93 | 1·84 | 0·32 | 12·52 |
| 42 | Sirsa | 662 | 2·21 | 3·65 | 3·56 | 2·13 | 0·23 | 11·78 |
| 41 | Karnal | 809 | 4·11 | 9·64 | 6·06 | 3·58 | 0·39 | 23·78 |
| 40 | Umballa | 902 | 3·93 | 11·55 | 8·38 | 4·07 | 0·54 | 28·47 |
| 39 | Ludhiana | 812 | 2·33 | 9·75 | 6·59 | 4·38 | 1·17* | 24·22 |
| 37 | Hoshiarpur | 1,058 | 3·40 | 10·25 | 9·29 | 4·36 | 0·34 | 27·64 |

* This high average is in a great measure due to exceptionally heavy rain in 1853, 1854, and 1863. It occurred in all three years at some other stations, but not in equal excess.

*Summer Rainfall on the Punjab Plains*—continued.

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total June to October |
| 38 | Jullundur | 1,000 | 2·43 | 8·38 | 7·27 | 3·68 | 0·51 | 22·27 |
| 36 | Ferozepur | 645 | 2·25 | 7·15 | 5·40 | 2·62 | 0·60 | 18·02 |
| 35 | Amritsar | 756 | 2·26 | 8·54 | 6·73 | 2·88 | 0·50 | 20·91 |
| 34 | Lahore | 732 | 1·71 | 7·25 | 4·68 | 2·49 | 0·54 | 16·67 |
| 33 | Gurdaspur | 1,100 | 3·59 | 9·29 | 6·92 | 3·61 | 0·64 | 24·05 |
| 32 | Gujranwala | 800 | 1·68 | 8·32 | 6·22 | 2·51 | 0·54 | 19·27 |
| 31 | Sialkot | 829 | 2·88 | 11·82 | 9·52 | 3·07 | 0·57 | 27·86 |
| 30 | Gujrat | 820 | 2·54 | 8·50 | 7·13 | 2·86 | 0·52 | 21·55 |
| 27 | Shahpur | 647 | 1·21 | 3·73 | 3·46 | 1·70 | 0·18 | 10·28 |
| 26 | Jhelum | 827 | 1·98 | 7·39 | 5·26 | 2·30 | 0·49 | 17·42 |
| 25 | Rawalpindi | 1,652 | 1·71 | 7·63 | 6·90 | 3·31 | 0·53 | 20·08 |
| 19 | Kohat | 1,754 | 1·10 | 4·43 | 2·94 | 1·73 | 0·65 | 10·85 |
| 18 | Peshawar | 1,110 | 0·36 | 1·82 | 2·11 | 0·83 | 0·26 | 5·38 |
| 20 | Bannu | 1,276 | 1·10 | 2·01 | 3·11 | 0·80 | 0·15 | 7·17 |
| 29 | Montgomery | 400 | 1·07 | 3·22 | 2·18 | 1·05 | 0·17 | 7·69 |
| 28 | Jhang | 570 | 0·92 | 3·97 | 2·07 | 0·79 | 0·21 | 7·96 |
| 21 | Dera Ismail Khan | 573 | 0·64 | 1·79 | 1·75 | 0·59 | 0·15 | 4·92 |
| 24 | Mooltan | 420 | 0·33 | 2·27 | 1·23 | 0·87 | 0·12 | 4·82 |
| 23 | Muzaffargarh | 388 | 0·33 | 1·33 | 1·48 | 0·67 | 0·10 | 3·91 |
| 22 | Dera Ghazi Khan | 395 | 0·57 | 2·12 | 1·30 | 0·35 | 0·07 | 4·41 |

The rainfall chart, Plate VII, shows that, as on the Gangetic plain, so also on the plain of the Punjab, which is, in fact, an extension of the former, the precipitation diminishes to the north-west, on a line parallel with the Himalaya, and also at right angles thereto, *viz.*, with the increasing distance from the hills.

The monsoon rains generally set in, in the Punjab, about the same time as in the upper part of the North-Western Provinces, as illustrated by the table of dates for Agra on a preceding page. They are frequently interrupted by breaks, more or less prolonged, even in the eastern part of the province; and during these breaks, dry westerly winds frequently prevail. In the western part of the province, away from the hills, fine weather is the rule, and rain an exceptional phenomenon throughout the monsoon.

The rains are usually over by the third week in September, but in some years a late fall occurs in the beginning of October, a fall which is of great importance to the success of the winter crops.

GUZERAT.—This province receives its rainfall entirely from the western branch of the monsoon; and since it is swept by this current, immediately impinging on it from the Gulf of Cambay and the Arabian Sea, it might perhaps be anticipated that it would share the excessive rainfall of the Konkan, which extends immediately to the south. This, however, is not the case, as is shown by the following table :—

*Summer Rainfall of Guzerat.*

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total, June to October. |
| 281 | Surat | 36 | 9·78 | 13·36 | 9·82 | 7·35 | 1·31 | 41·62 |
| 280 | Broach | 58 | 7·03 | 15·06 | 8·81 | 6·84 | 1·48 | 39·22 |
| 275 | Bariya | 1,100 | 5·48 | 17·95 | 10·95 | 10·59 | 0·70 | 45·67 |
| 274 | Godhra | 465 | 5·21 | 17·13 | 11·32 | 8·44 | 0·74 | 42·84 |
| 273 | Kaira | 90 | 4·04 | 13·52 | 8·90 | 4·62 | 0·46 | 31·54 |
| 272 | Ahmedabad | 200 | 3·34 | 11·06 | 9·00 | 4·42 | 0·65 | 28·47 |
| 271 | Edar | 900 | 3·27 | 16·32 | 11·34 | 7·05 | 0·34 | 38·32 |
| 270 | Palanpur | 700 | 2·29 | 10·26 | 11·95 | 4·60 | 0·84 | 29·94 |
| 269 | Deesa | 469 | 2·26 | 9·27 | 8·47 | 3·05 | 0·91 | 23·96 |
| 123 | Mount Abu | 3,945 | 5·04 | 22·02 | 22·86 | 8·63 | 2·31 | 60·86 |
| 276 | Wadhwan | 231 | 2·99 | 7·39 | 3·09 | 4·06 | 0·44 | 17·97 |
| 277 | Rajkot | 429 | 5·29 | 9·48 | 6·39 | 4·44 | 0·78 | 26·38 |
| 278 | Manekvada | 500 | 4·86 | 10·75 | 4·98 | 5·10 | 1·72 | 27·41 |
| 279 | Songad | 100 | 2·39 | 8·32 | 4·71 | 6·88 | 1·25 | 23·55 |

In the above table, the different parts of the province are very unequally represented. Surat and Broach, on the coast of the Gulf of Cambay, somewhat inadequately represent the plain, which rises gradually to the Rajpipla hills, or extends, to the north and south of these hills, up the valleys of the Tapti and Nerbudda; but the north-eastern districts, including Rewa Kanta, which extend up to the plateau of Central India and Rajputana, include the majority of the stations enumerated. The great peninsula of Kathiawar again furnishes but fours registers, *viz.*, those of Rajkot, Wadhwan, Manekvada, and Songad.

As a whole, the province holds a position intermediate between the region of high rainfall in the Konkan and the dry, almost rainless, desert of Western Rajputana, and there is a rapid decrease of the rainfall from south-east to north-west. In fact, as is shown by the wind registers of Deesa, Rajkot, and Surat, the monsoon blows across Guzerat with an average rate of movement, not much less than 20 miles an hour, in June and July; a velocity as great as that recorded at the Colaba Observatory on the exposed point at the entrance of Bombay harbour; and both experience and theory indicate that, as a rule, horizontal currents are not precipitating currents; the exceptions being those in which the horizontal movement is combined with a considerable amount of vertical movement, and when expansion and dynamic cooling result from diminished pressure, as in the vortex of a cyclone. Accordingly, the highest rainfall of Guzerat is on the flanks of the Rajpipla hills, on those which rise to the edge of the Malwa plateau, and on the isolated hill mass of Mount Abu. On the other hand, the scantiest rainfall is where the province borders on the sandy and saline waste of the Runn of Cutch, and the rolling

dunes of Western Rajputana. Except on those rare occasions when a barometric minimum compelling an ascent and expansion of the vapour-laden air is formed over this region, or travels to it from Central India and Bengal, the winds, which sweep its surface, become relatively drier, in virtue of their increased temperature, and bear away their undiminished charge to the remote plains and mountains of Northern India. But when, as in July 1881, a cyclonic vortex is formed to the west of the Aravalis, or when, as more frequently happens, a barometric depression travels from the shores of Bengal to the western part of the Malwa plateau, or beyond, an excessive precipitation is produced to the south and south-east of the vortex, and on such occasions the province of Guzerat sometimes becomes the seat of wide-spreading and destructive floods. Like the Gangetic plain, Khandesh and the Carnatic, Guzerat is especially characterized by the vicissitudes of its rainfall.

WESTERN RAJPUTANA, SIND, AND CUTCH.—In the great plain that extends from the western foot of the Aravali chain to that of the Suliman and Khirtar ranges to the west of the Indus, we reach the western limit of the summer monsoon rainfall. Not indeed that any part of this region is absolutely rainless; but, throughout the summer monsoon, rain is rare and uncertain; especially so in Upper Sind; and the rainfall register of Shikarpore shows that, out of 18 years, in not less than six, or a proportion of one in three, the total precipitation from June to October inclusive, amounted to less than 1 inch. From the Runn of Cutch, the plain of the Jeysulmere and Bickaneer desert rises gradually to the north, dotted here and there with a low, rocky hill, or covered with long rolling sand dunes, till it attains, at Jeysulmere, an elevation of 960 feet, and on its eastern margin, along the foot of the Aravalis, one between 1,200 and 1,300 feet. The valley of the Indus, to which it declines along its western margin, would be equally desert, notwithstanding the presence of the river, but for the numerous canals which take off its flood waters, and distribute them far and wide, in fertilizing measure, over the low-lying flats on either bank. Of the stations in the following list, Erinpura is situated not far from the foot of the Aravalis, and to the north of Mount Abu, which, no doubt, takes off some of the rain that would otherwise reach it. Jodhpur and Pachpadra lie further west, in the salt tract traversed by the Luni river. Bickaneer is situated much further north in the heart of the desert. Bhuj and Rahpur are in the Island of Cutch, and Parkar to the north on the further margin of the Runn. The remaining stations are in Sind; Umarkot, the most easterly, being within the desert tract.

*Summer Rainfall of Western Rajputana, Sind, and Cutch.*

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total, June to October. |
| 119 | Erinpura | 1,142 | 0·90 | 5·25 | 4·18 | 2·76 | 0·38 | 13·47 |
| 117 | Jodhpore | 1,274 | 0·84 | 3·46 | 5·21 | 2·55 | 0·28 | 12·34 |
| 118 | Pachpadra | 380 | 0·50 | 2·87 | 4·02 | 2·51 | 0·04 | 9·94 |
| 106 | Bickaneer | 742 | 1·77 | 4·82 | 3·27 | 1·43 | 0·05 | 11·34 |
| | Rahpur | 400 | 0·71 | 9·42* | 3·22 | 3·46 | 1·60 | 18·41 |
| 268 | Bhuj | 395 | 2·34 | 4·89 | 3·61 | 2·41 | 0·90 | 14·15 |

* The Rahpur registers are for six years only, and the rainfall in 1881 and 1882 was exceptionally heavy in July.

*Summer Rainfall of Western Rajputana, Sind and Cutch*—continued.

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total, June to October. |
| 267 | Nagar Parkar | 100 | 1·89 | 5·34 | 6·00 | 1·92 | 0·40 | 15·55 |
| 266 | Umarkot | 100 | 0·94 | 3·68 | 4·39 | 1·18 | 0·29 | 10·48 |
| 265 | Hyderabad | 66 | 0·44 | 2·94 | 3·27 | 0·75 | 0·01 | 7·41 |
| 264 | Tatta | 39 | 0·97 | 3·65 | 1·48 | 1·30 | ... | 7·40 |
| 263 | Kurrachee | 49 | 0·19 | 2·97 | 1·87 | 0·86 | 0·07 | 5·96 |
| 262 | Sehwan | 119 | 0·01 | 2·13 | 2·83 | 0·87 | ... | 5·84 |
| 261 | Rohri | 190 | 0·34 | 1·35 | 1·23 | 0·32 | 0·02 | 3·26 |
| 260 | Shikarpur | 194 | 0·13 | 1·28 | 1·70 | 0·18 | ... | 3·29 |
| 259 | Jacobabad | 186 | 0·09 | 1·32 | 1·39 | 0·26 | 0·01 | 3·07 |

The conditions, under which rain falls in this desert tract and Sind, have already been noticed in the description of Guzerat. They are similar in both provinces, but the occasions on which a barometric minimum exists over Lower Sind, or so far south as to produce rain in Western Rajputana and Sind, are much more rare. They occur more frequently in July and August than in other months of the rains.

THE HIMALAYA.—This chain forms the northern limit of the Indian monsoons, and therefore of the summer monsoon rainfall. The anemometric registers, hitherto obtained from the Himalayan observatories, scarcely suffice to give us accurate information representing the course of the winds on the mountain zone, inasmuch as the local directions are largely influenced by those of the valleys and ridges immediately around, and the observatories are not sufficiently numerous to allow of the elimination of these purely local influences. From the evidence of Murree, Chakrata, Ranikhet and Darjeeling, it appears that, at all times of year, there is a large preponderance of winds from between south and west; but the observations are those of the forenoon and afternoon only, and there can be little doubt that this preponderance is in a great measure due to the regular diurnal set of the air towards the mountain mass. From casual observation of the cloud movements overhead, during the last three or four summers at Simla, it appears to me that the most frequent winds are either from south-east or north-west, as on the plains; the former being, as a rule, the rain-bearing wind, the latter the characteristic wind of fine dry weather. Sometimes there appears to be drift of air from the snows towards the plains, rendered apparent by the inclination and movement of the tops of the cumulus rising from the great valleys. And, at Darjeeling, I have observed, at Christmas, a steady current from the south-west, blowing for several days in succession and crowning Kunchinjinga and its sentinel peaks with long cloud banners, such as Tyndall has described and explained in the case of the Alpine peaks. But this was a forerunner of the winter rainfall. At Simla the drift of the higher clouds is very frequently from south-west.

The summer and autumn rainfall is brought to the mountains by both branches of the monsoon. The North-Western Himalaya undoubtedly receives the greater part of its precipitation from that branch which blows from the Gulf of Cambay across Rajputana, as

has been shown in the wind tables of certain stations in Western India at pages 19 and 21; and not infrequently, chiefly in the months of July and August, when the pressure over the Central and Eastern Himalaya (Nepal, Sikkim, &c.) is lower than on the Gangetic plains, very heavy rainfall is brought to that portion of the chain, also, by the same branch of the monsoon; but, more frequently, the atmospheric pressure on the mountain tract exceeds that on the plains, and the greater part of the Sikkim and Nepalese rainfall, a considerable portion of that of Kumaon, and probably some of that of the Cis-Sutlej Himalaya, is the tribute of the Bengal branch of the monsoon. In this latter, the two branches equally recurve as south-east winds around the quasi-persistent barometric minimum of the Punjab and Upper Sind, and the source of the current, under ordinary circumstances, can no longer be distinguished by its local direction.

The following tables will serve to afford some idea of the Himalayan rainfall. In order to illustrate the subject somewhat more fully than could be done by the registers of the few hill stations that have finished registers for many years past, I have included in the following table for the Western Himalaya the registers of a few stations relating to recent years and short periods only:—

*Summer Rainfall of the Central Himalaya and the plain at foot.*

SIKKIM AND NEPAL.

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total, June to October. |
| 164 | Cooch Behar | 150 | 35·50 | 23·07 | 21·86 | 23·44 | 5·19 | 109·06 |
| 163 | Jalpaiguri | 270 | 29·90 | 25·08 | 25·69 | 24·80 | 5·74 | 111·21 |
| 162 | Bara | 2,076 | 47·17 | 48·52 | 43·80 | 33·72 | 11·03 | 184·24 |
| 160 | Kurseong | 4,840 | 33·46 | 39·52 | 27·50 | 22·28 | 3·14 | 125·90 |
| 159 | Darjeeling | 6,912 | 25·25 | 29·86 | 26·19 | 17·66 | 6·50 | 105·46 |
| 161 | Mongpoo | 4,700 | 31·43 | 30·65 | 27·15 | 16·68 | 5·32 | 111·23 |
| 140 | Katmandu | 4,361 | 10·06 | 13·92 | 13·90 | 7·19 | 2·19 | 47·26 |

*Summer Rainfall of the Western Himalaya.*

KUMAON AND GURHWAL.

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total, June to October. |
| 50 | Srinagar | 1,743 | 4·40 | 8·68 | 7·99 | 3·06 | 0·49 | 24·62 |
| 51 | Pauri | 5,230 | 5·40 | 13·75 | 12·35 | 4·93 | 0·57 | 37·00 |
| 52 | Ranikhet | 6,069 | 5·97 | 13·09 | 10·31 | 6·42 | 0·54 | 36·24 |
| 53 | Almora | 5,494 | 5·87 | 9·73 | 7·82 | 4·71 | 0·86 | 28·99 |
| 54 | Pithoragarh | 5,373 | 7·62 | 12·65 | 9·96 | 4·68 | 1·11 | 36·02 |
| 55 | Naini Tal | 6,400 | 15·34 | 24·99 | 23·98 | 10·78 | 1·60 | 76·69 |
| 57 | Champawat | 5,546 | 7·39 | 14·48 | 11·54 | 7·11 | 1·72 | 42·24 |
| 56 | Haldwani | 1,434 | 10·51 | 20·54 | 20·55 | 10·70 | 1·16 | 63·46 |
| 49 | Dehra | 2,232 | 8·55 | 24·93 | 23·27 | 9·18 | 0·71 | 66·64 |
| 47 | Chakrata | 7,050 | 7·70 | 17·58 | 15·41 | 5·58 | 0·53 | 46·80 |
| 48 | Mussooree | 6,880 | 9·82 | 30·35 | 29·71 | 10·03 | 0·96 | 80·87 |
| | Nti | 11,460 | ... | ... | ... | ... | ... | 5·50 |

*Summer Rainfall of the North-Western Himalaya.*

SIRMOOR, BUSAHIR, KULU, KANGRA, CHAMBA, HAZARA, KASMIR.

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | June. | July. | August. | September. | October. | Total, June to October. |
| 17 | Kasauli | 6,835 | 5·99 | 19·31 | 19·43 | 9·51 | 0·55 | 54·85 |
| 16 | Simla | 6,953 | 8·21 | 19·83 | 18·09 | 6·31 | 1·16 | 53·60 |
| 15 | Kotgarh | 5,000 | 5·81 | 14·15 | 14·86 | 6·33 | 0·58 | 41·73 |
| 14 | Kilba (Chini) | 8,500 | 0·70 | 3·05 | 3·35 | 2·95 | 0·50 | 10·55 |
| 13 | Sultanpur (Kulu) | 4 034 | 1·87 | 8·03 | 6·17 | 3·22 | 0·56 | 19·85 |
| 12 | Hamirpur (Kangra) | 2,490 | 3·61 | 13·98 | 15·39 | 6·81 | 0·60 | 40·39 |
| 11 | Kangra | 2,494 | 6·13 | 25·61 | 19·07 | 9·59 | 0·61 | 61·01 |
| 10 | Palampur | 4,000 | 10·27 | 34·82 | 30·37 | 12·55 | 1·98 | 89·99 |
| 7 | Dharmsala | 4,500 | 10·84 | 40·44 | 38·08 | 13·09 | 1·63 | 104·08 |
| 8 | Nurpur | 2,060 | 5·29 | 22·54 | 18·54 | 9·28 | 0·65 | 56·30 |
| 9 | Pathankote | 1,100 | 3·73 | 15·08 | 14·38 | 6·68 | 0·39 | 40·26 |
| 6 | Dalhousie | 6,740 | 6·96 | 26·09 | 22·45 | 9 38 | 2·00 | 66·88 |
| 5 | Murree | 6,344 | 2·69 | 11·72 | 14·02 | 5·58 | 2·25 | 36·26 |
| 4 | Abbottabad | 4,166 | 3·04 | 8·60 | 8·62 | 3·15 | 1·06 | 24·47 |
| 3 | Mansahra | 2,500 | 2·21 | 8·09 | 7·05 | 2·54 | 1·05 | 20·94 |
| 2 | Leh | 11,500 | 0·14 | 0·60 | 0·50 | 0·18 | 0·52 | 1·94 |
| 1 | Gilgit | 4,890 | ... | 0·69 | 0·44 | 0·08 | ... | 1·21 |

As the above table shows, the highest rainfall occurs on the outermost ranges, where the mountain mass towers up from the plains, where the ascent of the saturated air is therefore most rapid, and its dynamic cooling greatest; and, in both the Western and Central Himalaya, it decreases rapidly as we recede from this belt, either southwards on the plains or northwards towards the higher ranges.[1] The following instances, selected from the above and previous tables, serve to illustrate this law in the Central and Western Himalayas respectively:—

*Central Himalaya.*

| | | Inches. |
|---|---|---|
| PLAINS | Rungpore | 69·7 |
| | Cooch Behar | 109·1 |
| HILLS | Baxa Fort | 184·2 |
| | Kurseong | 125·9 |
| | Darjeeling | 105·5 |

*Western Himalaya (Kumaon).*

| | | Inches. |
|---|---|---|
| PLAINS | Rudarpur | 38·1 |
| | Kilpuri | 51·8 |
| | Haldwani | 63·5 |
| HILLS | Naini Tal | 76·7 |
| | Champawat | 42·2 |
| | Pithoragarh | 36·0 |

[1] This feature of the Himalayan rainfall and also the law of its distribution according to elevation, have been treated of by Mr. S. A. Hill in Vol. I. of this serial (p. 411).

*Western Himalaya.*

| | | Inches. |
|---|---|---|
| PLAINS | Umballa | 28·5 |
| | Nursingarh | 38·7 |
| HILLS | Kasauli | 54·9 |
| | Simla | 53·6 |
| | Kotgarh | 41·7 |
| | Sultanpur | 19·8 |
| | Kilba | 10·5 |

In the first of the above series, Baxa Fort is situated on a terminal spur of the Bhotan-Himalaya, 2,000 feet above the plains, therefore on the very margin of the hills. Kursteong and Darjeeling, both in Sikkim, are distant respectively 8 and 16½ miles from the foot of the hills. In the second series, Haldwani is on the level of the plains, but just within the outermost hill spurs, and Naini Tal at the summit of the outermost range of Kumaon; while Champawat is 18 and Pithoragarh 35 miles from the plains, from which they are screened by higher ridges. In the third series, Kasauli is about 3½ miles and Simla 23 miles in a direct line, in the interior of the hills, and the approximate equality of the fall must therefore be due to Simla having in some other respects a more favourable exposure. But it is evident that, in the Punjab Himalaya, the precipitation on the outermost range is relatively, as well as absolutely, less heavy than in the Eastern Himalaya; and in Kangra, not far to the north-west of Simla, where a tract of hill country, the elevations of which do not exceed 3,000 or 4,000 feet, stretches for 50 miles between the plains and the higher ranges, the rainfall increases very gradually, with the gradual increase of average elevation, from the plains to the foot of the snow-capped Dhaoladhar, and then rises suddenly to a maximum on the southern flank of this range. Thus, beginning with Hoshiarpur on the outer plain, we have—

| | Inches. |
|---|---|
| Hoshiarpur | 27·6 |
| Unao | 30·4 |
| Dehra | 66·6 |
| Kangra | 61·0 |
| Palampur | 90·0 |
| Dharmsala | 104·1 |

The decrease of the rainfall, more especially that of the zone of maximum precipitation, as the mountain range is followed from Bhotan westward and north-westward to the Punjab, is also illustrated in the above tables. An anomalous rise takes place indeed on the Dhaoladhar, owing to the circumstance already noticed; but, with this exception, the hill stations between 6,000 and 7,000 feet, which range, at intervals, along the outer Himalaya at a short distance from the plains, illustrate very well the rule as enunciated. Thus we have—

| | Inches. |
|---|---|
| Darjeeling | 105·5 |
| Naini Tal | 76·7 |
| Kasauli | 54·9 |
| Murree | 36·3 |

On passing beyond the first snowy range, the precipitation is greatly reduced. There are, at present, no registers for long periods, to show the approximate average precipitation of this dry region, excepting that of Leh, which extends over eight years. In addition to this, we have a register of Gilgit in the extreme north-west of Kashmir for two years,

one of Kilba in the Sutlej valley, a little below Chini, for two years, and General Strachey's registers of Niti, in Gurhwal, relating to one year only. The amounts recorded at those stations, from June to October inclusive, (in the case of Niti, July to September only,) are as follows:—

| | | | |
|---|---|---|---|
| Leh . . . . | 1·9 inches. | Kilba . . . . | 10·5 inches. |
| Gilgit . . . . | 1·2 „ | Niti . . . . | 5·5 „ |

The snow-capped ranges of the Himalaya, therefore, constitute the limit of the monsoon rains on the north, as do the Indus valley, and the plains of Western Rajputana on the west. It remains now to retrace our steps to the south-east, and to describe, as far as our somewhat scanty data admit of, the rainfall of the eastern peninsula.

ARAKAN.—On the coast of Arakan, the south-west monsoon blows with its full force. The ground, for the most part, rises almost immediately from a rocky coast line, or is bordered by a narrow fringe of alluvial land, and culminates in long parallel ridges, running more or less athwart the course of the wind. To the west of Pegu, these hills attain to an elevation of a few hundred feet only; but further north, about the head waters of the Koladyne, they rise to more considerable heights; in the Blue Mountain to about 5,676 feet, and in Sangal Khang to 7,438 feet. The conditions of this coast are, therefore, very similar to those of the west coast of the Indian peninsula, and the rainfall is equally excessive; as the following table shows. I give the May rainfall, which in this province is high, but it is not included in the total of the final column:—

*Summer Rainfall of Arakan.*

| Appendix Number | Stations. | Elevation in feet. | Rainfall in inches. | | | | | | Total, June to October. |
|---|---|---|---|---|---|---|---|---|---|
| | | | May. | June. | July. | August. | September. | October. | |
| 201 | Demagiri . . . | 1,300 | 13·56 | 20·46 | 17·41 | 21·45 | 19·87 | 7·96 | 87·15 |
| 202 | Rangamatia Hill . . | 142 | 10·37 | 18·54 | 19·61 | 19·12 | 13·23 | 7·83 | 78·33 |
| 203 | Chittagong . . . | 87 | 9·10 | 23·28 | 22·42 | 20·23 | 13·91 | 5·74 | 85·58 |
| 204 | Cox's Bazar . . . | 20 | 10·47 | 36·15 | 40·85 | 24·60 | 15·07 | 7·65 | 124·32 |
| 419 | Akyab . . . . | 15 | 12·42 | 53·05 | 51·71 | 37·92 | 23·26 | 12·30 | 178·24 |
| 420 | Kyaukpyu . . . | 20 | 10·37 | 41·81 | 46·13 | 39·20 | 21·23 | 9·95 | 158·32 |
| 421 | Sandoway . . . | 50 | 14·04 | 50·83 | 59·05 | 47·05 | 24·59 | 11·36 | 192·88 |
| | Diamond Island . . | 41 | 9·56 | 22·65 | 25·60 | 20·51 | 26·11 | 11·67 | 100·54 |

Of the above stations, Demagiri and Rangamatia are situated in the hill tract to the north-east of Chittagong, the former about 60 miles, the latter 35 miles only from the sea, or, more strictly speaking, from the broad estuary of the Megna. The other stations are all on or very near the coast; Kyaukpyu being more protected than other stations, in virtue of its position at the north-east corner of Ramree island. It will be seen that, on the open coast of Arakan, from Akyab southwards, the rainfall of the monsoon months is not far short of 200 inches, which is higher than that registered at any station on the west coast of India. To the north of this, however, it declines rapidly, and, at Chittagong, has fallen below 90 inches. This is probably due to the change in the course of the wind, from south-west, to south and even south by east, in virtue of which, less air ascends either

in eddies or otherwise, over the more northern stations, than where it blows more directly athwart the coast line.

It may be noticed that the May rainfall is already considerable, indicating that the monsoon sets in at an early date; and, moreover, that it attains its maximum in June or July; the fall of June being, in nearly all cases, greater than that of August. And besides beginning early, the rains last late on this coast, the totals for October (excepting at Chittagong) varying from 7½ to 12½ inches.

PEGU.—The province of Pegu, lying under the lee of the broad but low hill ranges of Arakan, is, for the most part, a much drier region. The monsoon blows with but slight obliquity on the sea face of the Irawadi delta; and on the maritime belt of this delta, the rainfall is, therefore, heavy; for the same reason as on the Sunderbuns of Bengal, and on the coast of certain portions of the peninsula. But, even at Rangoon, it is less than half as heavy as on the coast of Arakan, on the one hand, or on that of Tenasserim on the other; and it decreases rapidly to the north; and where, above Prome, low hills close in on the river above the head of the delta, the monsoon precipitation scarcely exceeds the general average of India. The following table shows the monthly precipitation during the summer monsoon :—

*Summer Rainfall of Pegu.*

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | | Total, June to October. |
|---|---|---|---|---|---|---|---|---|---|
| | | | May. | June. | July. | August. | September. | October. | |
| 428 | Rangoon | 41 | 11·37 | 18·24 | 21·07 | 17·98 | 16·28 | 8·21 | 81·78 |
| 427 | Bassein | 35 | 8·09 | 18·35 | 25·20 | 20·71 | 15·26 | 8·12 | 87·64 |
| 426 | Henzada | 44 | 6·45 | 16·01 | 19·97 | 16·46 | 11·13 | 4·70 | 68·27 |
| 425 | Myanaung | 74 | 5·38 | 10·06 | 10·31 | 10·44 | 9·80 | 5·19 | 45·80 |
| 424 | Prome | 128 | 6·17 | 9·59 | 9·08 | 11·47 | 8·22 | 5·41 | 43·77 |
| 422 | Thayetmyo | 134 | 5·85 | 8·19 | 7·85 | 9·02 | 7·92 | 5·59 | 38·57 |
| 423 | Toungoo | 169 | 6·61 | 12·94 | 17·32 | 17·91 | 11·76 | 7·49 | 67·42 |

The above table shows that the tract of low rainfall is restricted to the valley of the Irawadi. To the east of that river, the hills of the Pegu Yoma, partly drained by the Sitang, rise to greater elevations than those of Arakan; and these, catching the monsoon current that blows across the delta from the south or south-south-west, receive a much greater rainfall. We have as yet no registers from the region to the north of the Pegu frontier, save that of a single year, from May to September, at Mandalay. This gives a total fall, for the five months, of only 15·86 inches, and indicates, (what is also confirmed by the character of the vegetation,) that, in Ava, we have a dry tract, comparable with that of the Indian Deccan, and owing its aridity to a similar cause. This is its position under the lee of a hill range or rather hill ranges; not indeed very lofty, but receiving an excessive precipitation on their windward face, and thus robbing the winds that traverse them of the greater part of their vapour.

It is probable, judging from analogy, that the greater part of the air which, in the summer monsoon, sweeps over Ava, really comes from the south-west or west-south-west.

On this point the wind register of Mandalay, indicating, as it does, merely the direction of the surface currents, is of little validity. But, even supposing that the main current is more southerly and blows up the valley from Pegu, the case is but little altered. From Prome upwards, the river is repeatedly hemmed in by low hill ranges, all of which must be traversed by winds blowing up the valley from the delta; and the effect of these, in gradually draining the moisture from the air, is shown in the rapid diminution of the average rainfall between Henzada and Thayetmyo.

The tables, above given, show that, on the sea-face of the province of Pegu, as well as on the coast and hill ranges of Arakan, the monsoon rains set in early; indeed, as a rule, in the middle or latter part of the month of May. In Arakan they are at their heaviest about the end of June or the beginning of July, the fall of these two months being nearly equal. But, in Pegu, they attain their maximum somewhat later, *viz.*, in July; and in the more northern parts of the province and Ava, they appear to be still further retarded. At Mandalay, in 1879, the heaviest rainfall was in September.

TENASSERIM.—Like the coast of Arakan, that of Tenasserim is exposed to the brunt of the monsoon, which, both at Moulmein and Mergui, blows from the south-west. The province consists entirely of longitudinal ranges of hills and the narrow alluvial flats which they include, and in all parts, as far as is shown by the existing rainfall registers, the summer precipitation considerably exceeds 100 inches. Of the four stations enumerated in the following table, no one is actually on the open sea-board. Moulmein and Tavoy are on rivers, separated from the sea, in each case, by a hill ridge of no great height. Mergui, the most southerly station, is protected, on the sea-face, by a succession of three or four moderate-sized islands, each with hills of 1,000 feet or more in height; and Shwegyin, the most northerly, is more than 60 miles in the interior, among the hills that enclose the narrow valley of the Salween.

*Summer Rainfall of Tenasserim.*

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | May. | June. | July. | August. | September. | October. | Total, June to October. |
| 429 | Shwegyin . . . | 128 | 11·86 | 30·93 | 33·68 | 31·93 | 19·50 | 10·65 | 126·69 |
| 430 | Moulmein . . . | 94 | 20·22 | 38·48 | 43·41 | 43·03 | 30·99 | 8·38 | 164·29 |
| 431 | Tavoy . . . . | 20 | 17·27 | 39·04 | 45·74 | 41·77 | 34·35 | 10·59 | 171·49 |
| 432 | Mergui . . . . | 96 | 16·88 | 29·49 | 30·63 | 27·31 | 26·11 | 13·24 | 126·78 |

It is to be observed that, while Moulmein and Tavoy both show a decided maximum in July and August, Shwegyin and Mergui have about the same rainfall in each of the three months, June to August; and at all, the May rainfall bears a higher proportion to that of the following months than at stations in Arakan. At all, except Shwegyin, the most northerly station, it is absolutely greater. In this earlier copiousness of the rainfall, Tenasserim resembles, therefore, the west coast of India under the same latitudes; but it does not exhibit the same strongly-marked June maximum; and the rain of the subsequent months, as well as the total fall, is heavier there than in Canara; a difference which is doubtless due to the western or Indian branch of the monsoon being, in a

greater measure, diverted to the heated plains of Northern India, and to another circumstance to be noticed in the next section under the Carnatic autumn rainfall.

ANDAMANS AND NICOBARS.—These groups of islands are both situated midway in the full sweep of the summer monsoon. They are traversed by hills, which, however, are of low elevation opposite the stations at which the observatories are situated; and in both instances these are on the lee coast of the respective islands. It is probable, therefore, that on the windward face of the islands, the rainfall is heavier than that shown in the present registers, but there is no reason to suppose that it anywhere equals that of Tenasserim and Arakán. Port Blair is a little to the south of Mergui and in nearly the same latitude as Cannanore; Nancowry is nearly the same as Cape Comorin.

*Summer Rainfall of the Bay Islands.*

| Appendix Number. | | Elevation in feet. | Rainfall in inches. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | May. | June. | July. | August. | September. | October. | Total, June to October. |
| 433 | Port Blair | 61 | 16·23 | 18·71 | 17·26 | 15·19 | 19·32 | 12·19 | 82·58 |
| 434 | Nancowry | 81 | 11·74 | 13·00 | 12·08 | 11·07 | 10·55 | 14·21 | 60·91 |

At both these stations, but most prominently at Nancowry, we find, in a more emphasized form, the features already noticed in the case of Tenasserim, *viz.*, relatively, a more copious precipitation in May, and a relative reduction of the July-August maximum. Furthermore, they show a certain relative increase of that of the latter part of the monsoon; so that, at both these stations, we have reproduced the phenomenon of the double maximum already noticed on the west coast of Ceylon and at Cochin. The first maximum is in June; the second in September at Port Blair, in October at Nancowry; and, as on the west coast of Ceylon, the two maxima are approximately equal. At Nancowry, as may be seen on reference to the general table in the appendix, a considerable amount of rain falls both in April and November and December; not much less than in the mid monsoon months; and thus we have a distinct approach to the conditions of constant precipitation prevailing in the equatorial zone; conditions which may be illustrated by the rainfall register of Singapore.

*Annual Rainfall of Singapore.*

| | Inches. | | Inches. |
|---|---|---|---|
| January | 7·73 | July | 5·84 |
| February | 6·16 | August | 8·46 |
| March | 6·52 | September | 6·88 |
| April | 7·06 | October | 8·68 |
| May | 7·01 | November | 10·69 |
| June | 6·72 | December | 9·89 |

GENERAL DISTRIBUTION OF THE SUMMER RAINFALL.—The general distribution of the rainfall of the summer monsoon, in India and British Burma, is shown on Plate VII (a reduction of the larger chart on which the data were originally laid down). The wettest zones, in which the monsoon rainfall exceeds 100 inches, (and in places attains to or even surpasses double that amount,) are the west coasts of the two peninsulas, the south face of the Khasi hills in Eastern Bengal, and that of the outer Himalaya north of the Bay of

Bengal, together with the strips of the adjacent plains. In their physico-geographical character, these zones have much in common. In each instance, the steep slopes of a mountain range receive the full onset of the monsoon wind, blowing either direct from the ocean, or over low-lying plains traversed by broad flooded rivers, which present an evaporating surface not less effective than that of the ocean itself.

The zone of excessive precipitation is in no case very broad. In the Western Ghats, its width averages less than 50 miles: it extends from the coast to but a few miles beyond the crest of the range; and thence to the eastward, the decrease in the precipitation is very rapid, the rainfall diminishing from 250 to less than 40 inches in a distance of 20 or 30 miles, and to 20 inches or less within double that distance. On the Arakan coast, where the range is broad and low, scarcely exceeding 500 feet as far north as the the British frontier of Pegu, the decrease is less rapid, and the delta of the Irawadi affords access to southerly winds, which carry a copious rainfall to the ranges east of that river. Nevertheless, Myanaung at the head of the delta and Prome and Thayetmyo still higher up the main stream, have a monsoon rainfall of 46 inches only or less; whereas, Kyaukpyu and Sandoway on the coast, have 158 and upwards of 190 inches respectively. The rainfall, on the face of the coast range, diminishes considerably to the north, where its course runs more nearly parallel with the direction of the monsoon, and where therefore, presumably, the forced ascent of the current is less rapid. In any case, to the east of the Sunderbuns, neither Chittagong, close to the coast, nor the stations of Rungamati and Demagiri in the lower hills to the eastward, have a monsoon rainfall of so much as 90 inches on an average.

But leaving the hills of Tipperah and crossing the plains of Sylhet to the foot of the Khasi and Garo hills, we come on a zone of country where the rainfall locally exceeds anything known on the Arakan coast. Here, the scarped declivity of the hills which, north of Sylhet, rise abruptly to over 4,000 feet, runs directly athwart the course of the monsoon; which, within a very few miles, is forced up to an elevation of 4,000 feet, producing the precipitation that has long rendered Cherra Poonjee famous in the annals of meteorology. A precipitation so excessive as that of Cherra is probably restricted to a few favoured spots, but there is no doubt that the fall is very heavy along the whole of the south face of the hills. The Khasi hills being a plateau rather than a ridge, and the valley of the Brahmaputra to the north being so humid at all seasons of the year, the decrease of the rainfall northward from Cherra Poonjee is less rapid than to the lee of the Western Ghats; but, nevertheless, there is a tract around Gauhati, in which the rainfall of the five months, June to October, is somewhat under 50 inches.

In the case of the Himalaya, the belt, within which the monsoon rainfall exceeds 100 inches, is broadest at the base of the Sikkim-Himalaya, extending fully 50 miles into the plains, and comprising about an equal extent of the outer ridges and slopes of the hills. Towards the east, nothing is known of the rainfall of the hills beyond Baxa fort, where the average monsoon rainfall amounts to nearly 200 inches; but it no doubt declines with the extension of the range up the Brahmaputra valley. To the west, also, registers are wanting for the southern face of the hills and the Terai (or plain fringing the hills) up to the western extremity of Nepal. But it would appear that the zone of 100 inches and upwards scarcely extends uninterruptedly so far as Kumaon, since Naini Tal, which is very close to the zone of maximum precipitation, has only about 66 inches from June to

October. Mussooree, however, which is further west, has 80 inches; and Dharmsala, on the south face of the Dhaoladhar and more than 150 miles to the north-west of Mussooree, has more than 100 inches; so that the amount evidently varies considerably with the abruptness, height, and orientation of the hills, which are the first to meet and arrest the monsoon current.

It is only for the North-West Himalaya that we possess registers from the dry zone beyond the snowy ranges; but the Sikkim registers and that of Katmandu in the Central Himalaya show that, at no more than 50 miles from the plains and to the south of the snows, the monsoon precipitation is much less; not more than half of that on the outermost face of the hills; and this decrease is still more distinctly exhibited by the registers of stations in Kumaon and Gurhwal, as has already been illustrated at page 61.

To the north of the first snowy range, the decrease is rapid. At Kilba in Busahir, in the Upper Sutlej valley, the registers of the two years, 1883 and 1884, show only 8·4 inches in the former, from June to October, and 29·6 inches in the latter year; and there is reason to believe that the rainfall of 1884 was quite exceptional, 13 inches having been registered in September alone. At Kailang, in the Chandra Bhaga valley, in Lahoul, north of the Rotang Pass, 6·3 inches were registered in the monsoon of 1884, which is also probably an unusual amount. At Leh, in the Upper Indus valley, the average of eight years in the five months, June to October, amounts to only 2·07 inches, and that of two years at Gilgit to 1·09 inches.

Nearly the whole of Bengal, east of the Hooghly and Matabhanga, together with Assam, Cachar, Arakan, and Pegu, enjoys an average fall exceeding 50 inches. There is nothing comparable with this broad zone of abundant rainfall around the belt of excessive rainfall in the west of the Indian peninsula, where, however, the area having upwards of 100 inches is, on the whole, broader than in Arakan and Eastern Bengal. This difference is doubtless due mainly to the configuration of the country, since the plains of Bengal and Pegu are spread out to windward of the hills, which force the ascent of the monsoon current, whereas, on the west coast of India, the strip of low country along the foot of the Ghats scarcely anywhere exceeds 30 or 40 miles in breadth. But this fact does not account for the high rainfall of the greater part of the Brahmaputra valley as compared with that of the plateau of Mysore and the Deccan, since both of these tracts lie to leeward of the hill ranges, which determine the zone of excessive precipitation. It is true that the Himalayan range skirts the northern margin of the Assam valley, and that, to the south-east of the Dhunsiri valley and Upper Assam, the Patkoi range offers another mountain barrier to the winds, causing their ascent and consequent enhanced precipitation; while the Garo hills, which are the western extension of the Khasi hills, and the Naga hills, which connect the Khasis with the Barrail range and the Patkoi, are less than half the height of the Khasi hills, and allow a large body of saturated air to pass to the north at a comparatively low level. But another circumstance, which is probably highly influential in determining the more copious rainfall of Assam, is the general humidity and constant evaporation of the land surface itself, the broad rivers, swamps, and rich forest, all of which offer a most marked contrast to the dry rolling plateau of the Deccan. It will be seen afterwards that these characteristic features of Assam and Eastern Bengal exercise a still more striking influence on the differential precipitation of the spring and early summer, the period antecedent to the monsoon.

The remainder of India proper, stretching between the Himalaya and Bengal, on the one hand, and the Western Ghats on the other, presents a vast central tract (broadest on the east, and occupying about two-fifths of the whole) with a monsoon rainfall of from 30 to 50 inches; to the north and south of which are two regions with a much lower precipitation. One of these comprises the whole of North-Western India, exclusive of the mountain zone and narrow strip of the plains at the base of the Himalaya; the other the greater portion of the peninsula. In the drier part of the latter, the average monsoon rainfall is below 20 inches, and in the extreme south, below 10 inches; in the former, the rainfall diminishes steadily in a north-western direction, till, on the line of the Indus, it falls below 5 inches, and may be said to reach its limit in the desert of the Pat, extending between the Indus and the hills of Baluchistan.

A reference to the charts of barometric pressure in the monsoon season on Plates IV and V helps to explain this distribution of the rainfall. The area of the more copious rainfall, which, as will afterwards be shown, is also that in which it is most constant and regular, coincides with the eastern portion of the region of average minimum pressure; in which, therefore, the two branches of the monsoon from the opposite coasts meet, and over which the ascent of the air is normally most active. It is also for the most part a hilly tract, and it is that which, as the charts illustrating Mr. Eliot's Memoir (No. VI of volume II of this serial) shows, is most frequently traversed by the cyclonic vortices generated in the north of the Bay of Bengal during the summer monsoon. More especially do these remarks hold good of that portion, (defined by a line on the chart, Plate VII,) the monsoon rainfall of which exceeds 40 inches, and which excludes the greater portion of the Gangetic plain west of Patna, Hyderabad, and the Northern Circars under the lee of the Eastern Ghats.

The southern or peninsular region of low monsoon rainfall is determined by two conditions. In the first place, during the greater part of the monsoon, it is indeed swept by the vapour-bearing current from the Arabian Sea: but the movement of this current being horizontal or descending and not ascensional, save where it is driven up and forced to ascend by the interposed range of the Western Ghats, the vapour is not precipitated, unless under exceptional circumstances; and in the second place, its store of vapour has been in a considerable measure exhausted in its passage across the Western Ghats. But the configuration of the country causes well-marked inequalities in the rainfall. Whenever a group of hills or a broad extent of hilly country rises considerably above the general surface, there is an increased precipitation, more marked indeed in May and the period preceding the monsoon than during its prevalence, but always effective. Thus, the plateau to the north-west of Hyderabad, drained by the Manjira and its tributaries, has an average monsoon rainfall exceeding 30 inches; while in the country to the west, intervening between this plateau and the Western Ghats, it falls to below 20 inches; and again to the east, where the country slopes towards the Godavery, it declines to between 20 and 25 inches, increasing again to the east of that river in the hills of Bastar and Jeypore.

Again, further south, the lofty hill groups to the west and south-west of Madras, together with the Eastern Ghats and the adjacent portion of the Payen Ghat or plain around their foot, have an average monsoon rainfall between 20 and 30 inches; while, on the plateau of Northern Mysore and Bellary, the plain of Coimbatore, and that to the south of the lower Cauvery, it nowhere amounts to 20 inches.

On the coast of Coromandel, the chart shows that the rainfall again increases, but this is mainly due to the October rainfall, which, as will be shown more at length in the next section, comes to it from the eastward.

The driest zone in the peninsula is that which runs down, in the lee of the Western Ghats, from Khandesh to Tinnevelly. To the south of the Kistna it widens out, and the tract within which the monsoon rainfall is below 20 inches extends to the opposite coast of the peninsula. But between the Pennar and the Cauvery, the rise of the Eastern Ghats and the great hill groups, already mentioned in the description of the Carnatic rainfall, again restrict it, and where the Eastern Ghats run across it to join the Nilgiris, it is interrupted by a band of higher rainfall. To the south of the Cauvery, however, and of the Pachamullai hills, it again extends across the peninsula; and the driest region in the whole peninsula is the coast to the north-east of Cape Comorin, where, at Tuticorin, the average rainfall of the five months, June to October, is only 5 inches; and of this total, not less than $3\frac{1}{2}$ inches falls in October alone.

The causes which, in North-Western India, determine a rapid decrease of the rainfall in a north-westerly direction, and more particularly the existence of an almost rainless tract in Sind and the Pat desert, are not immediately obvious. Such low and interrupted hills, as oppose themselves to the free sweep of the monsoon in Kathiawar and Cutch, are quite inadequate to arrest and precipitate any considerable portion of its vapour, and so produce a dry tract to leeward; and indeed the absence of any belt of high rainfall across these peninsulas prove that there is no such action. With respect to the southern and maritime portion of the tract in question, *viz.*, Lower Sind, Cutch, and Kathiawar, the explanation of its comparative rainlessness is the same as in the case of the peninsula, *viz.*, that it is swept by a strong horizontal current; and only rarely and exceptionally is the seat of ascensional movement; the more rarely and exceptionally, the further we proceed westwards. That this is so, is proved by the wind registers of Kurrachee, Bhuj, Deesa, and Rajkot, all of which show a high rate of movement and great steadiness of direction from west or south-west.

But this explanation will not apply to the central arid tract of the Indus region, which is that of the lowest rainfall, as it is also the seat of lowest barometric pressure, (*ex.* Jacobabad). Here, at least, it might perhaps have been expected that, as in Chutia Nagpur and the Central Provinces, the ascensional movement of the air would determine a zone of maximum precipitation; if, indeed, one less copious than to the eastward, where the rainfall is fed by both branches of the monsoon. It is evident, then, that the existence of the arid, almost rainless, region of North-Western India must be susceptible of some other explanation. This appears to be of a twofold nature. In the first place, a consideration of the laws of the winds around an area of barometric minimum would lead us to expect that a large portion of the air circulation, around the Indus minimum, is not that of the monsoon current drawn from the Indian Ocean, but is an indraught from the dry countries to the westward, the Mekran coast, and the less elevated southern portion of Baluchistan. And it is extremely probable that such is really the case. At Quetta, the prevailing winds, throughout the monsoon, are north-west or west; at Kurrachee, the average direction is almost due west; and only at Hyderabad are the winds mainly from south-west, and here they are unquestionably influenced by the direction of the valley and of the hills to the west of the river.

In the second place, the aridity of the central or focal area is enhanced by that of the surrounding region, which, so far from furnishing evaporation and recruiting the vapour constituent of the winds passing over it, merely raises their temperature, and lowers their relative humidity, reducing them further and further below the point of saturation.

Now the very low pressure maintained in the Indus region, throughout the monsoon, is mainly and primarily the effect of the persistent high temperature,[1] the low density of the heated air, and only secondarily, and probably in a very small degree, that of the deviation and centrifugal movement of the winds. But, although the position of the barometric depression determines the circulation of the horizontal current *around* it, implying, as a necessary correlative, ascensional movement there or elsewhere, it does not necessarily determine such movement *immediately over it.* An ascending current demands, as a primary condition, a supply of energy; and dry air, although at the high temperature of the summer months in Sind, contains no greater store of energy than is derived from the local absorption of the solar heat; whereas air saturated with water vapour, while not less absorptive of the local solar heat, brings with it, in a latent form, all the energy, absorbed in distant regions, by the evaporation of its contained vapour; and it is the conversion of this energy of latent heat into the dynamic energy of air movement that determines active convection and, as a concomitant effect, the precipitation of rain.

The inference from the above consideration is, that that ascensional movement, the existence of which is necessarily implied by that of a horizontal circulation around the barometric depression of the Indus valley, is not concentrated near the focus, but is gradual and distributed, being more active over the large surrounding area, where the monsoon rainfall averages from 10 to 30 inches, than nearer the central drier region. It is probably most active of all on the Himalaya and Sub-Himalayan plains of the Punjab, for it is a matter of frequent observation that the heavy rain of the North-West Himalaya is brought up by a south-west current.

If this view be correct, we may expect to find a rapid decrease in the horizontal movement of the wind, on comparing the anemometric registers of a linear series of stations, following, as nearly as possible, the course of the circulating wind, at a sufficient distance, radially, from the barometric focus. To verify this conclusion, I take from the anemometric tables, given in the Report on the Meteorology of India in 1883, the average diurnal movement of the air in the months of June, July, August, and September, at the four stations Deesa, Pachpadra, Bickaneer, and Sirsa, the positions of which may be seen on the map, Plate I of this Memoir. They are as follow:—

*Average diurnal movement of the wind during the summer monsoon.*

| | June. | July. | August. | September. |
|---|---|---|---|---|
| Deesa . . | 418 miles. | 341 miles. | 289 miles. | 199 miles. |
| Pachpadra . . | 318 „ | 237 „ | 244 „ | 130 „ |
| Bickaneer . . | 193 „ | 165 „ | 153 „ | 130 „ |
| Sirsa . . . | 137 „ | 123 „ | 120 „ | 83 „ |

The decrease in the movement of the winds, shown by the table, is not merely such as would be required on the preliminary hypothesis of a gradual ascent of the circulating current, but is such that, if solely due to this cause, the rainfall along its course would be

[1] Throughout the summer, Jacobabad has the highest mean temperature of any station in India. And the intense heat of the Pat desert is notorious.

far greater than that which actually occurs. In point of fact, however, a very considerable portion of the air sweeping over Kurrachee, Rajkot, and Deesa, does not enter the local circulation as a south-west wind around the Indus minimum, but is diverted as a west wind across Eastern Rajputana and Central India, and goes to feed the much more active ascending currents in the region of the higher rainfall to the eastward. It is this indraught towards Central and North-Eastern India, operating in conjunction with that towards the Punjab and the Indus region, that explains the high average movement of the winds of Kurrachee, Bhuj, Rajkot, and Deesa, during the south-west monsoon.

The aridity of North-Western India, of Sind, the Southern Punjab, Bahawalpore, and Western Rajputana, is then traceable, both directly and indirectly, to the fact that the barometric minimum, there established, is a seat of indraught to land winds, in a far larger measure than to those from the sea. The negative effects of this substitution are cumulative. For the heat and dryness of the land surface around, (in the absence of rain,) lower the humidity, not only of these land winds, but even of such portion of the sea winds as are diverted northwards across the desert tract. Moreover, these dry winds bring no supply of latent energy, and, wanting this, can form but feeble ascending currents. Consequently, the horizontal indraught of sea air is but small, and the greater portion of the strong current that sweeps across Lower Sind, Cutch, and Guzerat, is drawn eastwards to the region of active precipitation in Central and Eastern India, and adds its quota to that furnished by the more southern portion of the westerly branch, and by the laterally diverted portion of the Bengal branch of the monsoon. And, lastly, in that portion of the area which is swept by the sea wind, this wind is a horizontal and not ascending current, and therefore, under ordinary circumstances, produces no local rainfall.

GENERAL CHARACTERS OF THE SUMMER MONSOON.—I shall conclude this section with a brief description of the general characters of the monsoon, in so far as they affect those of the rainfall of the Indian area, reserving the very important discussion of the vicissitudes of the rainfall, and the occurrence of drought and famine, for the second part of this Memoir.

The general fact that the summer monsoon is due to the differential action of the sun on the land of Southern Asia, to the heating of the land surface and the superincumbent atmosphere, and the consequent formation of a barometric depression over the land, towards which currents of air set in chiefly from the neighbouring seas, has long been one of the standing and familiar truths of Meteorology. An error which still occasionally finds place in popular treatises, but which has long disappeared from those having any pretension to authority, is that the goal of the Indian monsoon is situated in Central Asia; the existence of an impassable barrier in the Himalayan chain and the great plateau of Thibet having been, somewhat unaccountably, disregarded. It is, indeed, true that, rarely and exceptionally, a rain or snow precipitating current penetrates far into the Himalaya, such precipitation having been recorded on one or two occasions in recent years at Leh and in the interior of Lahoul: but, with such rare exceptions, the winter and spring, and not the summer, are the seasons of precipitation on all but the outermost and most southern ranges of the Himalaya; and since the condensation of water vapour, as cloud, snow or rain, is the necessary concomitant and indication of an actively ascending current, and the goal and terminus of every horizontal air current must be the place of its ascent, we may justly regard Northern India as the goal of the local monsoon.

So rapidly does the differential action of the sun on the land surface manifest itself in the early months of the year, that, so early as February, the barometric pressure in the interior of the peninsula begins to fall below that of the surrounding seas. This depression speedily extends northwards, and in March and April the region of greatest heat is situated in the Deccan, Central India, and Chutia Nagpur, the seat of lowest pressure being established on the eastern margin of the most heated tract; *viz.*, in Chutia Nagpur or Northern Bengal. The influx of sea air that follows immediately on this disturbance of atmospheric equilibrium, is practically restricted to the south and east of the Indian Peninsula and Bengal, as will be explained at length in another section; the consequence being the production of the short-lived local storms and showers, presently to be described, as the characteristic form of the spring rainfall.

It was pointed out by Maury,[1] and I have quoted his remarks, with general acquiescence, in my own description of the Meteorology of India,[2] that the winds which begin in February as sea winds, merely on the coast of the Sunderbuns, are gradually drawn in the subsequent months from greater distances at sea; and the wind table of the Bay of Bengal, drawn up by Lieutenant Cornelissen and reproduced in the *Indian Meteorologists' Vade-Mecum* (page 182), shows that the predominance of winds from between south and west is first established in the north of the Bay and extends gradually southwards. But, as Mr. Eliot has emphatically pointed out, in his recently-published Memoir on south-western monsoon storms,[3] "the northward extension of the south-east trades across the equator, and their continuation up the Bay, is a meteorological phenomenon of a different order of magnitude and intensity from that of the establishment and gradual intensification of the local sea winds at the head of the Bay and on the Bengal coast, in February and the hot weather months," and he regards this extension of the southern trades as the distinctive feature of the summer monsoon. That the setting in of the monsoon rains is a distinct and individualized phenomenon, to a certain extent, catastrophic in character, and not merely the gradual intensification of the southerly winds of the early summer months, has long been recognized by popular observation, and in the popular expression the 'burst of the monsoon'; and I have myself more than once pointed to the fact in previous writings,[4] though less emphatically than Mr. Eliot has done in the passage above quoted. It has also long been known from the descriptions of Dampier, Basil Hall, and others, that during the south-west monsoon, the south-east trades are frequently continuous across the equator; and it is very likely that, as Mr. Eliot remarks, and as I myself assumed in the second of the writings referred to in the foot-note below, it is the linking up of the wind currents on the opposite sides of the equator that determines the rush of saturated air that ushers in the monsoon rains. Nevertheless, the fact has been called in question by Dr. Mühry, who regards the south-west monsoon of Indian seas[5] as a mere "Detraction" or diversion of the lowest portion of the north-east trade,[6] and has endeavoured to show that the belt of

[1] Physical Geography of the Sea, 12th edition, page 368.

[2] Indian Meteorologists' Vade-Mecum, page 181.

[3] Indian Meteorological Memoirs, Vol. III, page 438.

[4] See (*e. g.*) Indian Meteorologists' Vade-Mecum, page 179. Also 'On the climate of Bengal,' Proc. As. Soc., Bengal, November 1873, page 183.

[5] Zeitschrift der Oesterr. Met. Gesellschaft., Vol. IV, page 221.

[6] More recently Dr. Vettin seems to have adopted a similar view. Zeitschrift der Deutsche Met. Gesellschaft., 1885, page 178.

equatorial calms extends uninterruptedly around the earth, in the monsoon region as elsewhere, with but a slight annual shifting of its position. That his view of the south-west monsoon, as thus expressed, is erroneous, and rests on a misapprehension of an observation of Colonel Sykes's, and that he altogether under-estimates the vertical thickness of the summer monsoon, I have endeavoured to show elsewhere.[1] But that the equatorial belt of constant rainfall exists across the monsoon region and is not bodily transferred northwards to India and southwards to Australia with the annual march of the sun in declination, is a well-established fact, and has been amply confirmed by the numerous rainfall registers of the Malay Archipelago, obtained, during the last five years, by the exertions of the late Dr. Bergsma.[2] These registers show that, while, in the neighbourhood of the equator, the season of the heaviest and most frequent rainfall is from November to January, (the former being the epoch of maximum to north, the latter to south of the line), there is no month in which the precipitation does not amount to at least 3 or 4 per cent. of the annual total. In fact, during the monsoon, the whole region between the equator and the Himalaya is more or less one of precipitation, and may be regarded rather as an extension and broadening out of the normal equatorial rainy zone, with a northward transfer of its maximum and a partial concentration in Northern India, rather than a bodily transfer of the zone northwards to Southern Asia. This view is quite consistent with the facts deduced in the foregoing discussion, *viz.*, the double maximum of Ceylon, Travancore, Tenasserim and the Bay islands, and it will be found greatly to facilitate the comprehension of many characteristic features of the monsoon; such as its oscillations, which Mr. Eliot, more especially, has described in several of his writings in this serial, and those well-known vicissitudes in the rainfall of India which will be treated of at length in the second part of this Memoir.

The linking up of the south-east trades with the south-west monsoon, in a continuous stream of air, is not by any means constant, nor I think a very frequent condition, even during the height of the monsoon; as appears from the table drawn up by Lieutenant Cornelissen (above referred to), and also from the wind charts which are now preparing for publication by the Indian Meteorological Office.[3] Nor even, as would seem from the logs given by Mr. Eliot in his Memoirs on cyclones, while a cyclone is raging in the Bay of Bengal, at a time, therefore, when the monsoon current which feeds the cyclone is at its strongest, do ships crossing the line always find the south-east trade veering to south and then to south-west. On the contrary, in the immediate neighbourhood of the line and as far north as Ceylon, the winds appear to be as a rule more westerly than in the Bay of Bengal, west and west-south-west being by far the most frequent entries in the logs, and these winds are variable and squally, very different in character from the trade winds, and frequently accompanied with heavy rain or squalls of rain, implying no small amount of local convection.

Instead, then, of the monsoon being simply a prolongation of the trades, the case would rather seem to be, that, most frequently, it originates in this variable, but on the whole westerly and rainy current, which is doubtless fed by the south-east trades, and consists of nearly saturated air; but it represents only a portion of the air poured by the southern

[1] Winds of Northern India, Phil. Trans., Vol. 164, page 621.

[2] A very useful summary of these valuable volumes has lately been given by Dr. A. Woeikoff in the Zeitschrift of the Austrian Meteorological Society, April 1885.

[3] Compiled from the marine logs collected by the London Meteorological Office up to 1878.

trade winds into the equatorial region; the remainder ascending convectively, precisely as in the Atlantic Doldrums. Nor is the monsoon drawn from this source alone. It is probably recruited, to a very considerable extent, from more northern latitudes, especially during fine intervals, when the current is slacker, and the rainfall on the Indian mainland less copious; and it is to the varying degrees, in which the two sources of supply are respectively drawn upon to furnish the indraught, that I would attribute the variations of the rainfall during the progress of the season, and those more important vicissitudes of different years, to which I shall have to draw attention in the sequel.

Rain does not fall continuously or steadily in any part of India during the rainy season. In the wettest tracts indeed, such as the Western Ghats, Eastern Bengal, Cachar and Arakan, there are very few absolutely rainless days in July and August; but even in these, sometimes for several days in succession, an afternoon shower represents the whole rainfall of the day; and, as a general rule in Northern India, the rainy season is made up of periods of two or three days with heavy rain, alternating with more or less similar intervals of comparatively fine weather; the fine intervals increasing in length and serenity as we approach the dry tracts in North-Western and Southern India. These alternations of fair and wet weather coincide with barometric oscillations, which affect simultaneously and pretty equably, either the greater part of India, or it may be only the northern, western, or eastern division, but always a great extent of country; and their amplitude is greater in Northern than in Southern India, thus tending alternately to increase or diminish the barometric gradient that favours the southerly monsoon. As a rule, the barometer falls during the finer intervals and rises with the rainfall. The cause and nature of these oscillations are still but little understood. They are not restricted to the rainy season, but occur at all times of the year, and are perhaps greatest just before the setting in of the rains. They have no *necessary* connection with the formation and passage of cyclonic storms, but a downward oscillation is frequently the precursor of one of these storms.

During the breaks in the rains, the winds of North-Western India are frequently from the west and sometimes even from the north-west; and, as I have pointed out elsewhere,[1] are similar in character, and probably in their origin, to the normal land winds of the spring. Occasionally, they continue to blow for several weeks, even during the height of the ordinary monsoon season, (in July and August), and they then exclude the rain-bearing current from the greater part of Northern, Central, and Western India. When thus prolonged, the drought that accompanies them is always prejudicial to the crops on the higher and, therefore, drier lands; but provided good rain has fallen at the beginning of the season, and that they are followed by another general downpour in September, the destruction is not of a disastrous character. A noteworthy barometric feature, which is the invariable accompaniment of these winds, when they extend far to the eastward and southward, is a relative rise of pressure in Western India, causing the isobars in Rajputana to advance to the north and partially or completely to interrupt the trough of low pressure, which is shown on the normal isobaric charts of the summer months, extending from Chutia Nagpur to the Punjab and Upper Sind. At the same time, the isobars run more obliquely (from north-west to south-east) across Central India and the peninsula. These

[1] Proc. Roy. Soc. No. 232, 1884, p. 20, "On the connection of the Himalayan snow-fall with dry winds and seasons of drought in India."

features have been frequently noticed in the annual reports on the Meteorology of India, as characteristic of periods of drought.

The greater part of the rainfall of the summer monsoon is more or less sporadic, and accompanied with but slight local disturbance of the normal distribution of pressure; being most frequent and regular in and immediately around the eastern half of the trough of low pressure, that, as shown in the charts, Plate IV, lies between the two branches of the monsoon. This includes Lower Bengal, Chutia Nagpur, Orissa, the greater part of the Central Provinces, and the numerous tributary states lying between. It is the region wherein the average fall exceeds 40 inches, shown on Plate VII, and particularly described on a previous page. But the heaviest falls are those which accompany the passage of the cyclonic storms, which we now know to constitute a frequent and characterstic feature of the summer monsoon.[1] Many of these have been described and illustrated in the annual reports on the Meteorology of India, and some at more length by Mr. John Eliot in previous volumes of these Memoirs; and in the VIth Memoir of the 2nd volume, he has given an admirable summary of their characteristic features and tracks, and has pointed out wherein they differ from the more violent and destructive storms of the transition periods, (May and October-November). That their existence had been ignored or rather was unknown until within recent years, and that the annual distribution of cyclones was believed to have a double maximum, (corresponding to the transition periods[2]), is now fully explained. Mr. Eliot has shown that this is due to their affecting a greater depth of the atmosphere, occurring, as they do, when the summer monsoon is at its height, and its greatest vertical thickness. Consequently, the horizontal movement of the winds is less violent and the barometric depression at their centre but small, although the volume of air poured in, if measured by the quantity of water condensed and precipitated, is at least as great as in the storms of the transition periods; and the vortices have greater durability, being less obstructed and impeded by the irregularities of the land surface over which they pass.

It is unnecessary to reproduce here the very interesting conclusions at which Mr. Eliot has arrived respecting these storms, as they have been admirably summed up in the concluding portion of his Memoir. I notice them here only as being a normal and frequent feature of the summer monsoon. Probably, as Mr. Eliot has remarked, all precipitation is accompanied with more or less eddying of the winds; the eddies are of all degrees of magnitude, and these storms are only the greater manifestation of that action.

[1] See Indian Meteorologists' Vade-Mecum, pages 219 and 247.

[2] Idem, page 246.

## AUTUMN RAINFALL OF THE CARNATIC.

The heavy rainfall of the Carnatic is essentially a feature of the transition from the summer to the winter monsoon, and has nothing in common with the cold weather rainfall of Northern India, which will form the subject-matter of the next section.* It was shown in the preceding description of the summer rainfall that, in the Bay of Bengal, a double maximum, corresponding to the beginning and end of the monsoon, is apparent in the rainfall registers, as far north as Port Blair; and that, on the coasts of Tenasserim and Arakan, although there is but one maximum, the rainfall of the latter half of the monsoon, as well as the total fall of the season, is much heavier than on the west coast of India under the same latitudes. This difference, which is very clearly seen if the rainfall registers of Mergui and Diamond Island be compared with those of Mangalore and Vengorla, (under nearly the same latitude,) arises from the fact that, at the beginning of the summer monsoon, the zone of variable winds with ascending currents, and therefore heavy precipitation, advances up the west coast of both the Indian and Burmese peninsulas; but, at its close, it retreats down the west coast of the Malay peninsula, but only down the east or Coromandel coast of the Indian peninsula, to the partial deprivation of the Malabar rainfall. It will be of interest to enquire how far this difference in the behaviour of the monsoon is traceable to differences in the geographical characteristics of the two peninsulas.

In several important features, India contrasts strongly with the peninsulas of Burma and Siam, to which the Malay peninsula is a comparatively insignificant appendage. Of the former, about one-half lies without the tropic; and being constituted, mainly, of broad plains bare of forest, the temperature, throughout the rainy season, remains comparatively high;[1] more especially so on the north-western plains, where the rainfall is precarious and scanty. Since it is the combination of high temperature with a certain amount of humidity that serves to maintain a low atmospheric pressure, Northern India causes a powerful indraught from both arms of the ocean that bathes the shores of its peninsula.

The Eastern peninsula, on the other hand, with the insignificant exception of a few narrow strips of plain bordering the Irawadi and other larger rivers, and the deltas at their mouths, is covered with ranges of hills, which rise higher and higher towards the north, and are in a great measure clothed with forest. Moreover, owing to the southerly advance of the great mountain barrier on its northern border, nearly the whole of the south-eastern limb of Asia, as bounded by the Himalaya, lies south of the tropic. For both these reasons, the summer temperature is but moderately high; and the extent of land surface being only about half of that of India, it is not difficult, even in the absence of any meteorological records, to see that the summer barometric depression over the Siamese peninsula

[1] In virtue of the increase of insolation in the higher latitude. See Indian Meteorologists' Vade-Mecum, Part II, para. 54.

is in all probability much less, both in intensity and extent, than that which our registers show in Northern India. Hence it is that, during the summer monsoon season, a not inconsiderable portion of the current that sweeps the Bay of Bengal is diverted to Northern India, and that the main direction of this branch of the monsoon is more southerly than that which traverses the Arabian Sea.

But there is a further difference between the two peninsulas, which more immediately influences the monsoon in its later stages. I have observed above that, notwithstanding the hilly character of the Siamese peninsula, the general elevation increases gradually northwards, until the ridges run up into the lofty snow-capped range of Eastern Tibet that conceals the sources of the Irawadi, the Salwin, and the Mekong. The whole is, therefore, fairly exposed to the sweep of the monsoon; and receives that well-distributed precipitation, which is carried down in the floods of the above-named rivers, and to the existence of which such travellers as Louis de Carné bear testimony. In the Indian peninsula, on the other hand, as has been shown at length in the preceding section, the lofty barrier of the Western Ghats prevents any large amount of rain falling on the central plateau, and still more so on the plains of the Carnatic, as far north as the delta of the Godaveri. The temperature of the south-eastern part of the peninsula, therefore, remains comparatively high; and as the charts, Plates IV and V show the pressure, throughout the monsoon, is considerably lower than on the west coast. When, in September and October, the rains cease in Northern India and the pressure rises as a result of the falling temperature, these Carnatic plains become the seat of minimum pressure, or rather a portion of the area of low pressure which also includes the south-west of the Bay and the eastern half of Ceylon; and the Bengal branch of the monsoon, while still blowing from the south-west at the Nicobars, becomes variable and frequently easterly at the Andamans, and also variable between east and north-east at Madras; tending, therefore, to recurve around this area of low pressure, and, as is usual under such circumstances, bringing more or less heavy precipitation. This is the season of the second maximum on both coasts of the southern part of the Bay of Bengal; and, on the Coromandel coast, the copiousness of the fall is exaggerated by the local conditions of temperature and pressure just described, thus constituting the late autumn rains of the Carnatic.

On the west coast of India, the conditions are different. With the reversal of the barometric gradient over the peninsula, the rise of pressure in Central and Northern India above that maintained in the Carnatic, the winds of the peninsula veer gradually from west through north-west and north to north-east. On the west coast the change is slower, and being under the lee of the Western Ghats, less complete; but even here, the north-west winds, which, at Mangalore, in October, are almost as frequent as those from west, are comparatively dry winds; while the western branch of the monsoon, even in September, has lost the greater part of its strength, owing to the rise of pressure in Northern India. At Calicut, Cannanore, and Mangalore, and all more northerly stations, therefore, the rainfall of the last two months of the monsoon is greatly reduced, and only on the coast of Travancore and Cochin, where, despite the intervening obstacle of the Western Ghats, a considerable indraught is still maintained towards the warm extremity of the peninsula, is the month of October marked by a certain increase of precipitation, producing a second maximum. These variations of the winds are illustrated in the following table, which is

based on the wind registers of four years for Mangalore and Diamond Island, five for Mergui, and seven years for the remaining stations :—

*Monthly percentage of Winds at Stations between N. lat. 16° and N. lat. 7°.*

| Stations. | Month. | N. | N.-E. | E. | S.-E. | S. | S.-W. | W. | N.-W. | Calms. |
|---|---|---|---|---|---|---|---|---|---|---|
| Mergui, 5 years | October | 4 | 7 | 4 | 8 | 6 | 22 | 19 | 28 | 2 |
| | November | 17 | 27 | 11 | 5 | 3 | 6 | 5 | 26 | 0 |
| | December | 20 | 32 | 13 | 5 | 1 | 3 | 3 | 23 | 0 |
| Diamond Island, 4 years. | October | 9 | 11 | 14 | 17 | 13 | 13 | 12 | 11 | 0 |
| | November | 14 | 29 | 29 | 15 | 1 | 0 | 1 | 11 | 0 |
| | December | 13 | 41 | 12 | 7 | 0 | 0 | 0 | 9 | 0 |
| Port Blair, 7 years. | October | 3 | 13 | 9 | 18 | 5 | 27 | 18 | 7 | 0 |
| | November | 5 | 46 | 14 | 16 | 5 | 6 | 4 | 4 | 0 |
| | December | 10 | 54 | 20 | 10 | 0 | 0 | 1 | 5 | 0 |
| Nancowry, 7 years. | October | 0 | 3 | 4 | 10 | 12 | 46 | 20 | 5 | 0 |
| | November | 1 | 9 | 25 | 29 | 6 | 21 | 6 | 3 | 0 |
| | December | 0 | 14 | 44 | 33 | 4 | 4 | 1 | 0 | 0 |
| Madras, 7 years | October | 18 | 18 | 14 | 18 | 9 | 12 | 4 | 6 | 1 |
| | November | 36 | 37 | 9 | 5 | 1 | 2 | 2 | 6 | 2 |
| | December | 41 | 49 | 4 | 1 | 0 | 1 | 0 | 3 | 1 |
| Negapatam, 7 years. | October | 3 | 14 | 5 | 7 | 14 | 36 | 14 | 7 | 0 |
| | November | 9 | 50 | 10 | 5 | 4 | 7 | 6 | 9 | 0 |
| | December | 12 | 78 | 4 | 1 | 0 | 2 | 0 | 3 | 0 |
| Bellary, 7 years | October | 11 | 15 | 13 | 15 | 6 | 5 | 10 | 24 | 0 |
| | November | 4 | 22 | 31 | 29 | 3 | 2 | 4 | 5 | 0 |
| | December | 1 | 14 | 37 | 45 | 2 | 0 | 0 | 1 | 0 |
| Bangalore, 7 years. | October | 3 | 22 | 14 | 9 | 4 | 14 | 24 | 10 | 0 |
| | November | 4 | 44 | 32 | 5 | 0 | 4 | 7 | 4 | 0 |
| | December | 1 | 40 | 50 | 6 | 0 | 0 | 1 | 1 | 0 |
| Mangalore, 4 years. | October | 2 | 1 | 2 | 5 | 13 | 15 | 25 | 19 | 18 |
| | November | 4 | 3 | 16 | 5 | 6 | 9 | 23 | 18 | 16 |
| | December | 2 | 2 | 36 | 4 | 0 | 4 | 20 | 21 | 11 |
| Cochin, 7 years | October | 4 | 1 | 7 | 6 | 15 | 25 | 23 | 19 | 0 |
| | November | 4 | 3 | 10 | 13 | 20 | 24 | 12 | 14 | 0 |
| | December | 5 | 6 | 10 | 12 | 19 | 23 | 14 | 10 | 1 |

This rainfall of the last three months of the year, in the southern half of the peninsula, as well as at the Bay Islands, is illustrated in the following table:—

*Rainfall of the autumnal transition season in Southern India, Ceylon, and the Bay Islands.*

| | Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|---|
| | | | | October. | November. | December. | Total. |
| Plains of the Carnatic. | 349 | Ellore | 78 | 6·95 | 2·56 | 0·37 | 8·98 |
| | 351 | Guntur | 400 | 6·91 | 2·38 | 0·25 | 9·54 |
| | 350 | Masulipatam | 10 | 8·58 | 4·11 | 0·48 | 13·27 |
| | 353 | Ongole | 200 | 6·88 | 4·86 | 0·96 | 12·70 |
| | 356 | Nellore | 20 | 9·84 | 10·17 | 3·41 | 23·42 |
| | 371 | Madras | 22 | 10·80 | 13·40 | 5·04 | 29·24 |
| | 367 | Chittoor | 1,112 | 6·57 | 4·73 | 1·69 | 12·99 |
| | 368 | Palmaner | 2 214 | 6·10 | 4·47 | 1·30 | 11·87 |
| | 369 | Vellore | 676 | 6·74 | 6·25 | 2·15 | 15·14 |
| | 370 | Arcot | 558 | 5·39 | 5·87 | 1·69 | 12·95 |
| | 372 | Conjeeveram | 250 | 6·58 | 7·85 | 2·47 | 16·90 |
| | 373 | Chingleput | 150 | 6·78 | 8·45 | 3·08 | 18·31 |
| | 374 | Tindivanam | 400 | 7·87 | 7·92 | 2·66 | 18·45 |
| | 379 | Cuddalore | 20 | 7·75 | 12·52 | 4·73 | 25·00 |
| | 382 | Salem | 940 | 7·22 | 2·65 | 0·70 | 10·57 |
| | 377 | Atur | 850 | 7·67 | 5·06 | 1·12 | 13·85 |
| | 378 | Vriddhachalam | 300 | 5·92 | 6·51 | 2·68 | 15·17 |
| | 380 | Udayarpalaiyam | 1,250 | 7·26 | 7·27 | 3·83 | 18·36 |
| | 384 | Kumbakonam | 40 | 8·26 | 8·63 | 5·28 | 22·17 |
| | 385 | Tranquebar | 20 | 8·85 | 13·96 | 9·50 | 32·31 |
| | 391 | Coimbatore | 1,348 | 5·90 | 3·33 | 0·97 | 10·20 |
| | 390 | Karur | 380 | 6·14 | 2·96 | 1·31 | 10·41 |
| | 389 | Trichinopoly | 275 | 7·86 | 5·23 | 2·92 | 16·01 |
| | 387 | Tanjore | 364 | 5·60 | 5·54 | 3·71 | 14·85 |
| | 386 | Negapatam | 15 | 7·96 | 13·85 | 9·84 | 31·65 |
| | 392 | Dindigul | 700 | 6·20 | 5·09 | 2·20 | 13·49 |
| | 394a | Madura | 448 | 8·88 | 5·37 | 2·04 | 16·29 |
| | 397 | Tuticorin | 20 | 3·40 | 7·47 | 2·28 | 13·15 |
| | 398 | Tinnevelly | 119 | 6·07 | 9·61 | 2·94 | 18·62 |
| Central plateau and hills. | 357 | Kurnool | 900 | 03·79 | 0·79 | 0·17 | 4·75 |
| | 360 | Gooty | 1,168 | 4·07 | 1·09 | 0·08 | 5·24 |
| | 363 | Cuddapah | 477 | 5·15 | 2·91 | 0·55 | 8·61 |
| | 359 | Bellary | 1,455 | 3·76 | 1·01 | 0·26 | 5·03 |
| | 332 | Shimoga | 1,900 | 5·00 | 1·15 | 0·36 | 6·51 |

*Rainfall of the autumnal transition season in Southern India, Ceylon, and the Bay Islands*—concld.

| | Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|---|
| | | | | October. | November. | December. | Total. |
| Central plateau and hills—*contd.* | 337 | Bangalore | 2,981 | 6·31 | 1·80 | 0·65 | 8·76 |
| | 340 | Mysore | 2,813 | 6·32 | 1·65 | 0·46 | 8·43 |
| | ... | Wellington | 6,200 | 8·12 | 8·61 | 3·25 | 19·98 |
| | 406 | Ootacamund | 7,250 | 9·80 | 2·90 | 1·56 | 14·26 |
| | 381 | Shevaroy Hills (Yercaud) | 4,500 | 10·41 | 6·03 | 2·81 | 19·25 |
| Ceylon | 407 | Jaffna | 9 | 7·79 | 14·96 | 8·98 | 31·73 |
| | 418 | Anuradhapura | 302 | 5·86 | 12·24 | 8·55 | 26·65 |
| | 409 | Trincomalee | 175 | 8·25 | 12·61 | 12·93 | 34·79 |
| | 410 | Batticaloa | 21 | 5·22 | 13·34 | 14·45 | 33·01 |
| | 411 | Hambantota | 40 | 5·37 | 6·38 | 3·76 | 15·51 |
| Bay Islands | 433 | Port Blair | 62 | 12·10 | 8·55 | 5·67 | 26·32 |
| | 434 | Nancowry | 81 | 14·21 | 12·48 | 11·52 | 38·21 |

The above table shows that, in October, the rainfall varies but little with the latitude. It is appreciably heavier at stations on the coast, and especially on the more easterly projections of the coast line, as at Masulipatam, Madras, Tranquebar, and Negapatam, than in the interior; excepting in a few cases, in favourable situations in or near hills, such as the Shevaroys. At places more or less under the lee of the eastern hills, such as Kurnool, Gooty and Cuddappah, Coimbatore and Karur, the precipitation is at a minimum. In November and December, the concentration of the rainfall on the coast line is still more emphasized, and there is a very distinct variation according to latitude, the fall being more and more concentrated in the south, as the year approaches its term. Thus, whereas, in October, the town of Madras shows the highest rainfall in the table, in November this station is equalled or surpassed by Tranquebar, Negapatam, and Jaffna, and in December greatly surpassed by them, the maximum being in that month represented by Batticaloa, with Trincomalee, Negapatam, and Tranquebar following in the order of successive decrease. Tinnevelly and Tuticorin show a very decided maximum in November, their heaviest rainfall in the year, and this is also the case in all the northern and eastern districts of Ceylon, excepting indeed Batticaloa, where the December rainfall exceeds that of November. Nor does the rainy season at this station and Trincomalee come to an end with the closing year. The rainfall of January is considerable, and averages over 8 and 6 inches respectively at the two stations. Thus, on the east coast of Ceylon, the rainiest season is that when the north-east monsoon is most fully established in the Bay. But this is because this part of Ceylon, together with the sea to the east and south-east, is, in December, the goal of this monsoon, the region in which the winds begin to vary and circulate more or less with a tendency to give rise to ascending currents; and towards which the steady north-east current of the western half of the Bay is directed. On the west of Ceylon the prevailing directions are rather north or north-west than north-

east; and to the south of the island, squally west winds are very prevalent, constituting the westerly monsoon of the line, as it has been termed by Captain Maury.

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It follows then, from what has been written above, that it is hardly correct to speak of the Carnatic rains as those of the north-east monsoon, inasmuch as the rainfall ceases as soon as the monsoon is established down to Ceylon. It falls only so long as the region in question is within or on the borders of the barometric depression, towards which the winds blow, not from the north only, but also from east and south-east, and other quarters; and if from any cause, as sometimes happens, the seat of minimum pressure at this season is transferred to the south-east of the Bay, the Carnatic is deprived of its usual rainfall. As elsewhere, the rain depends on the ascent of the air which marks the goal of its horizontal movement; and the vapour is derived, not only, or perhaps even chiefly, from the northern half of the Bay, but is, even in larger measure, a constituent of the east and south-east winds which blow towards and around the seat of the barometric depression, and bring their tribute from warmer seas.

The excess of rain on the line of the coast, a phenomenon which has already been noticed in the case of the west coast of India and the Sunderbuns of Bengal, is even more conspicuous in the case of the Carnatic rainfall of October and November; and the cause, as has already been pointed out, is undoubtedly that an eddy, accompanied by ascent and dynamic cooling, is set up in the strong horizontal air current, blowing from the sea, where it encounters the resistance and increased friction of the land and its incidental obstacles.

## THE WINTER RAINS OF NORTHERN INDIA.[1]

It has long been a commonplace of meteorological hand-books, that the winter, or as it is more frequently (but less accurately) termed, the north-east monsoon, is due to a reversal of those conditions which, in the summer season, set in movement a flow of air from equatorial regions towards the plains of Southern and Eastern Asia, and the history of which has already been traced. But beyond this general statement of fact, very little has been done towards working out the physical characteristics of this familiar phenomenon of the Indian winter; and such vague conceptions as are implied in the popular theory, leave entirely unexplained the well-known occurrence of rain, about Christmas time, in Upper India; a region which, according to that theory, should then be the seat of a barometric maximum, the fount and source of the winter monsoon.

Since the establishment of a Meteorological Department, under the Government of India, has rendered it possible to study the weather of India as a whole, from day to day, some insight has been gained into the phenomena which precede and accompany the cold-weather rainfall of Northern India. In each of the annual reports on the meteorology of India in recent years, two or three instances of this cold-weather rainfall have been described and illustrated at some length; and at the present time, although many important points still require further elucidation, it is at least possible to set forth some generalizations on the conditions which usher in the precipitation of the cold-weather rains, and on the probable source of the vapour which feeds them.

The four charts on Plate III exhibit the average distribution of atmospheric pressure in the months of November, December, January and February. These charts, being based on the registers of duly verified barometers during the last ten years, corrected to a common standard, and reduced to a sea-level value in latitude 45° from elevations determined, in all but a few exceptional instances, by actual spirit-levelling to the mean sea-surface, may be accepted as representing with a near approximation to truth the relative differences of pressure which characterize the winter months in India.[2] Certain characters, common to all, may be regarded as distinctive of the season. The seat of highest pressure is in the neighbourhood of Peshawar. Whether this may be taken as indicating that the pressure on the high lands of Cabul is also greater than at similar elevations over the plains of India is, however, more than doubtful. The situation of Peshawar, on a plain of moderate extent, girt around with mountains, is such that the high pressure may be, and very probably is, a local effect of the cooled air draining in all sides from the surrounding slopes, and filling the basin, from which its escape is much obstructed. A similar high pressure is shown by some other stations near the foot of the North-West

[1] With a few unimportant changes, chiefly verbal, this Section has been published as a separate paper in the Journal of the Asiatic Society of Bengal, Volume LII, Part II, 1884, under the title "The Theory of the Winter Rains of Northern India."

[2] Rigorously speaking, any such representation must of course involve an element of unreality, which is the greater, the greater the difference of land levels in the area embraced in the chart; and where, as in the case of India, large sections of the area differ by 2,000 feet and upwards, this element attains to some importance. Although it may not seriously impair the value of the chart as an illustration of the pressure differences or potentials, which maintain the system of wind currents, the fact that the lower strata of air, resting on low alluvial plains, have no extension to the higher plateau, and cannot therefore be directly and immediately influenced by the atmospheric pressure there existing, is one that must be kept in view in discussing the relation of the winds to the pressure distribution.

Himalaya, of which Dehra is a notable example; the conditions of pressure at higher elevations over the Himalaya will be notified presently.

The next feature to be noticed is that, throughout the winter months, the axis of average high pressure on the plains and plateaux of India, occupies nearly the same situation as that of low pressure at the opposite season. It extends from Upper Sind, across Rajputana and the Central India plateau to Chutia Nagpur; the pressure, along this axis, declining more or less irregularly from north-west to south-east. To the north of this ridge, a trough of relatively low pressure on the Gangetic plain separates it from the higher pressure along the foot of the Himalaya; and, in most years, the pressure in the Punjab is somewhat lower than that of Western Rajputana. On the other hand, to the south of this axis, the pressure falls gradually down to Cape Comorin and Travancore, being, however, considerably higher on the east than on the west coast of the peninsula. In fact, the isobars ran down the peninsula almost parallel with the west coast. The low pressure area, which runs down the west coast of the peninsula, is prolonged to the north up the Gulf of Cambay, producing a northward bend in the isobars of that region, very similar to that shown by them in the summer monsoon; but with reversed gradients.

Hence, the cold-weather distribution of pressure may be not inaptly described as a reversal of that which characterizes the summer monsoon; but, in the first place, the barometric differences between the extremes, and therefore the gradients effective in producing the monsoon current, are less than half as great; and in the second place, the axis of high pressure across Northern India lies further south than its opposite in the summer monsoon. It lies well across the middle of the plateau to the south of the Ganges, instead of following the course of the river, or, as not infrequently happens in the case of the summer trough of depression, somewhat to the north of it. Thus both in summer and winter, low pressure tends to prevail in some part or other of the Gangetic valley and the Punjab; but, in the summer, the gradient declines towards the north-west, in the winter to the south-east.

There is reason to believe that this normal distribution of pressure is restricted to the lower strata of the atmosphere; that is to say, to the stratum less than 7,000 feet in vertical thickness, measured from the sea-level. Thus, for instance, a row of stations on the plains of the Punjab and Ganges, ranging from Peshawar down to Purneah, show a small but decided fall of pressure from north-west to south-east, when all the mean readings are reduced to their equivalent values at the sea-level. But if the mean pressures of the hill stations, Murree, Chakrata and Darjeeling (all of which are between 6,000 and 7,000 feet, or a little over the latter elevation) be reduced to a common level of 7,000 feet, the gradient at that elevation is found to be slightly but distinctly reversed, Darjeeling, the eastern-most station, showing the highest pressure, the other two lower pressures of nearly equal value.

*Sea-level equivalents in latitude 45° of atmospheric pressure on the Punjab and Gangetic plains.*

| | November. | December. | January. | February. |
|---|---|---|---|---|
| | Ins. | Ins. | Ins. | Ins. |
| Peshawar | 30·058 | 30·139 | 30·123 | 30·071 |
| Lahore | 29·984 | ·066 | ·051 | 29·989 |
| Delhi | ·972 | ·052 | ·039 | ·973 |
| Lucknow | ·961 | ·037 | ·022 | ·955 |
| Patna | ·949 | ·026 | ·018 | ·947 |
| Purneah | ·920 | 29·989 | 29·994 | ·924 |

*Equivalents at 7,000 feet of atmospheric pressure at stations on the Outer Himalaya.*

| | Ins. | Ins. | Ins. | Ins. |
|---|---|---|---|---|
| Darjeeling | 23·323 | 23·296 | 23·263 | 23·243 |
| Chakrata | ·294 | ·278 | ·239 | ·215 |
| Murree | ·301 | ·283 | ·240 | ·212 |

It was shown also in the "Indian Meteorologists' Vade Mecum,"[1] that, as between the Himalaya and Ceylon, the plane of neutral pressure, in January and February, is at a lower level than 7,000 feet, but not in the months of November and December; at least as an average condition. To this point, which is important, I shall presently return.

These facts of the pressure distribution prepare us, then, to expect that which our wind registers show, *viz.*, that the winter monsoon is a much shallower, weaker, and more unsteady current than its correlative of the summer season. On the plains, the air is very calm in the Punjab; and to the south and south-east, flows as a very gentle current, chiefly a day-wind, drifting from the north-west down the Gangetic plain; from north or north-east, and somewhat stronger, across the Central India plateau and the Satpuras; and from north or north-north-west in Lower Bengal; then, turning to north-east or east in the northern part of the peninsula; while, down the Bay of Bengal, it is pretty steady as the well-known north-east monsoon. It turns, therefore, in an anticyclonic curve, around the seat of maximum pressure in North-Western India. Its rate of movement, its comparative steadiness, and its mean direction may be estimated from the following tables.

*Percentage of wind directions and mean daily movement of the wind at stations in Northern India during the winter monsoon. (November to February.)*

| | | Years. | Per cent. | | | | | | | | | Mean daily movement in miles. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | N. | N.-E. | E. | S.-E. | S. | S.-W. | W. | N.-W. | Calm. | |
| A.—North-Western India. | Rawalpindi | 12 | 4 | 7 | 9 | 5 | 2 | 9 | 25 | 13 | 26 | 43 |
| | Lahore | 12 | 7 | 7 | 12 | 3 | 1 | 3 | 20 | 16 | 31 | 48 |
| | Ludhiana | 10 | 5 | 3 | 2 | 9 | 1 | 2 | 6 | 42 | 30 | 33 |
| | Delhi | 7 | 7 | 5 | 3 | 11 | 3 | 8 | 27 | 30 | 6 | 73 |
| | Mooltan | 12 | 8 | 21 | 1 | 10 | 4 | 14 | 2 | 15 | 25 | 47 |
| | Jacobabad | 6 | 17 | 13 | 8 | 5 | 2 | 4 | 7 | 14 | 30 | 50 |
| | Bickaneer | 6 | 10 | 18 | 9 | 7 | 9 | 18 | 5 | 8 | 16 | 67 |
| B.—Gangetic plain. | Roorkee | 17 | 2 | 3 | 2 | 13 | 3 | 6 | 6 | 25 | 40 | 50 |
| | Bareilly | 12 | 3 | 5 | 4 | 8 | 1 | 7 | 17 | 39 | 16 | 68 |
| | Lucknow | 12 | 12 | 5 | 2 | 4 | 2 | 5 | 17 | 28 | 25 | 43 |
| | Allahabad | 12 | 9 | 6 | 9 | 2 | 3 | 6 | 28 | 11 | 30 | 38 |
| | Gorakhpur | 12 | 1 | 2 | 4 | 6 | 2 | 7 | 29 | 15 | 34 | ? |

[1] *Op cit.*, page 175.

*Percentage of wind directions and mean daily movement of the wind at stations in Northern India during the winter monsoon. (November to February)*—(contd.)

| | | Years. | Per cent. | | | | | | | | | Mean daily movement in miles. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | N. | N.-E. | E. | S.-E. | S. | S.-W. | W. | N.-W. | Calm. | |
| B.—Gangetic plain—(*contd.*) | Benares | 16 | 4 | 6 | 8 | 3 | 3 | 11 | 39 | 12 | 14 | 64 |
| | Patna | 13 | 4 | 5 | 7 | 3 | 3 | 8 | 35 | 16 | 19 | 44 |
| | Purneah | 7 | 4 | 9 | 9 | 3 | 2 | 8 | 52 | 13 | ... | 46 |
| C.—Western India. | Hyderabad | 6 | 37 | 11 | ... | 1 | 3 | 9 | 6 | 21 | 12 | 171 |
| | Kurrachee | 21 | 9 | 18 | 16 | 4 | 4 | 14 | 18 | 9 | 8 | 229 |
| | Rajkot | 6 | 21 | 28 | 21 | 2 | 1 | 2 | 6 | 11 | 8 | 129 |
| | Deesa | 22 | 19 | 23 | 11 | 7 | 3 | 6 | 9 | 14 | 8 | 202 |
| | Pachpadra | 5 | 4 | 24 | 16 | 4 | 3 | 10 | 4 | 7 | 28 | ? |
| | Surat | 6 | 12 | 20 | 20 | 7 | 1 | 10 | 12 | 14 | 3 | 129 |
| D.—Central Indian plateau and Satpuras. | Mount Abu | 7 | 10 | 18 | 13 | 7 | 9 | 18 | 12 | 6 | 7 | 108 |
| | Neemuch | 6 | 7 | 12 | 12 | 15 | 17 | 17 | 8 | 12 | ? | 177 |
| | Indore | 6 | 11 | 16 | 24 | 11 | 8 | 5 | 11 | 5 | 9 | 58 |
| | Jhansi | 10 | 2 | 35 | 6 | 8 | 2 | 15 | 4 | 11 | 17 | 51 |
| | Nowgong | 6 | 20 | 9 | 9 | 3 | 2 | 6 | 14 | 16 | 21 | 35 |
| | Saugor | 11 | 16 | 29 | 10 | 6 | 5 | 7 | 11 | 14 | 2 | 54 |
| | Sutna | 7 | 16 | 12 | 9 | 4 | 5 | 5 | 13 | 29 | 7 | 92 |
| | Jubbulpore | 11 | 24 | 18 | 7 | 6 | 16 | 6 | 8 | 9 | 6 | 55 |
| | Pachmarhi | 11 | 15 | 17 | 8 | 15 | 7 | 9 | 5 | 21 | 3 | 68 |
| | Seoni | 11 | 2 | 40 | 5 | 16 | 1 | 18 | ... | 16 | 2 | 68 |
| | Chikalda | 7 | 23 | 4 | 3 | 10 | 18 | 12 | 5 | 19 | 6 | 109 |
| E.—Chutia Nagpur. | Hazaribagh | 14 | 10 | 6 | 4 | 4 | 4 | 6 | 23 | 40 | 3 | 118 |
| | Berhampore | 14 | 24 | 8 | 3 | 2 | 2 | 8 | 16 | 25 | 12 | 41 |
| F.—Lower Bengal. | Calcutta | 19 | 31 | 7 | 6 | 3 | 9 | 8 | 15 | 20 | 1 | 80 |
| | Jessore | 14 | 30 | 10 | 3 | 4 | 4 | 5 | 8 | 25 | 11 | 42 |
| | Dacca | 14 | 17 | 9 | 3 | 4 | 7 | 9 | 15 | 20 | 16 | 53 |

On comparing these tables with those given previously for the summer monsoon at the same stations, the relative greater frequency of calms, more especially in the Punjab and the Gangetic plains, the inferior steadiness of the wind in the prevailing quarter, and the very low absolute rate of its movement will be strikingly apparent. The highest rates of movement are in Western India, as are also those of the summer winds; but the former vary from less than half, to less than two-thirds of the latter, and the directions are much more variable.

It is further to be noticed that, while, at most stations, there is one direction of decided maximum, with some oscillation on either side, this being the local direction of the winter monsoon, at stations in the Punjab and the adjacent parts of the Gangetic plain, and also at Jhansi, Jubbulpore, Chikalda, Mount Abu and Kurrachee, there is a distinct

secondary maximum from an opposite quarter; and at Mount Abu, Neemuch, and Bickaneer, a certain absolute preponderance of southerly winds. These are the winds which interrupt the winter monsoon and bring up the vapour that is condensed on the Himalaya as snow, and on the plains of Northern India as the winter rains of that region.

In fact, not only is the barometric gradient, which characterizes the winter monsoon, less highly inclined than that of the opposite season, and the vertical height to which it prevails (the elevation of the neutral plane) considerably less, but it is more frequently reversed; and as a temporary phenomenon, barometric minima, with the usual vortical systems of winds, occasionally appear in Northern India. On such occasions, rain almost invariably follows, beginning generally over the mountains that hem in the Punjab, and on the plains at their foot, and those extending to the east and south-east; while the barometric depression moves eastward, and cold westerly winds, bringing fine weather and a wave of high barometric pressure, follow up in the rear.

In the majority of cases, the history of which has hitherto been traced out, the barometric minimum first appeared, and was apparently formed in some part of the great north-western plain; most frequently in the Punjab or Upper Sind, but, in some cases, in Western Rajputana. Mr. F. Chambers has put forward the suggestion[1] that these minima travel hither from regions further west; from the plateau of Beluchistan, or the still loftier mountain tract of Afghanistan; but there does not appear to be any sufficient evidence of this. We have, indeed, no Observatory in Afghanistan, and it may be long before any systematic observation is possible in that interesting but turbulent country. But an observatory has existed for some years past at Quetta; and although its elevation is not known with sufficient precision, to admit of its barometric register being reduced to terms comparable with those of the Sind and Punjab stations, I have compared the oscillations of the Quetta barometer with those in the valley of the Indus, when barometric minima have appeared in Upper Sind, and find that, with two very doubtful exceptions in January and February 1880, any fall of pressure at Quetta was either simultaneous with the fall in Sind or somewhat later. In one of these exceptional instances, there was a slight fall at Quetta two days, and on the other one day, before it took place at Jacobabad; but, on both occasions, the great fall, when the minimum was established in Upper Sind, was simultaneous at both stations. In such cases as that of the 25th January 1878, when the minimum first appeared at Deesa, and that of January, February and March 1881, when a barometric depression which had existed in Western Rajputana throughout the cold season, was simply intensified immediately prior to the rainfall, there could be no question of a depression travelling from the westward.

But it is not only in North-Western India even, that barometric minima are occasionally formed in the winter months. In the case of the rain of the 10th to 13th January 1878, it first appeared on the western half of the Deccan plateau; in that of the 10th February 1879, a long, trough-shaped depression ran through the heart of India from Belgaum to Lucknow; and in that of the 15th to 18th February 1880, it was first established in the Central Provinces, whence it was transferred to the Punjab, and the distribution of pressure in Northern India became strikingly similar to that which characterizes the rainy season.

There is, then, no reason to doubt that, notwithstanding that Northern India is in general, and on an average, an area of high pressure in the winter season, relatively to lower

[1] Nature, Vol. XXIII, p. 400.

latitudes, this condition is by no means constant or lasting. The atmospheric pressure in extra-tropical India, more frequently than that of the peninsula, occasionally falls below that prevailing over the seas to the south, causing vapour-bearing currents to pour in from that direction; and these currents, in ascending around the seat of minimum pressure, chiefly on the east and north of the minimum, condense that vapour as rain (and on the hills as snow). This is a more or less regularly recurrent feature of the winter season.

Of the conditions which determine the formation of these barometric minima, but little can be positively asserted in the present state of our knowledge. That they do not originate in a local excess of temperature in the lower atmospheric strata is abundantly apparent; the rise of temperature that in general precedes the rainfall, and is accompanied with a rise in the relative and absolute humidity of the air, is simultaneous with the setting-in of the southerly wind, and this change of wind implies a pre-existing reversal of the barometric gradient, which is the phenomenon to be accounted for. The following considerations may, however, be worthy of attention, as tending to throw some light into the prevailing obscurity.

It has been shown above, that at the very moderate elevation of 7,000 feet over the outer Himalaya, the barometric gradient is, on an average, slightly but distinctly reversed. At greater elevations, it is most probable that the reversal is more decided; for I have shown elsewhere,[1] that at Leh (11,500 feet), the pressure in February is at its annual minimum; and the wind registers of all our hill stations establish the fact that, throughout the winter months, the prevailing winds are southerly. This preponderance is no doubt, in some measure, perhaps mainly, due to the fact that the observations are those of 10 A.M. and 4 P.M. only; at which hours the diurnal updraught of the mountain winds, in an otherwise still atmosphere, is fully active. But I have myself witnessed at Darjeeling, in December, the effects of a strong steady current, sweeping overhead from the south-west, clothing the snow peaks with cloud-banners. This strong southerly wind is, however, exceptional, and is that which precedes rain; and although it is not improbable that, at great elevations, there is a more or less steady flow of air towards Central Asia, to feed the outflow, at low levels, from the anticyclone, which, as we know, normally exists in the winter over Northern and Central Asia, there is no reason to question that, up to a considerable elevation over Northern India, the more usual condition is one of comparative stillness, or at most of light movement. And in this state of the atmosphere, even a feeble local action, tending to reduce the density and therefore the pressure, may suffice to set up a centripetal drift of air, which may, in a short time, produce a well-developed barometric minimum. How this is brought about will be shown presently.

The southerly surface winds, that are invariably the precursors of precipitation, are not merely local: they prevail also far to the south, indeed over a great part of India, and they arrive charged with vapour gathered both from the sea and from the warmer land-surface of more southerly regions.

It seems not improbable, then, that the ulterior conditions which give rise to the winter rains may have their seat in the more elevated or middle region of the atmosphere, and we must look to the formation of cloud as the condition which, by disturbing the thermal equilibrium of the atmosphere, determines a convective current with a cyclonic circulation around a barometric minimum. The prevailing calmness of the Punjab atmosphere, combined

[1] Vol. I., p. 224.

with a high degree of relative humidity in the winter months, affords conditions not unfavourable to this action.

Before proceeding further with this discussion, it will be of advantage to consider the distribution of the winter rainfall, both in time and space.

For this purpose it will not be necessary to illustrate the subject in the same detail, as has been observed in the case of the rainfall of the summer monsoon, and instead of giving the means of individual stations, I shall summarize the data in the form of the averages of large areas. The following table gives the average amount of the fall in each of the months from November to March:—

*Summary of the winter rainfall of extra-tropical India.*

| | Stations. | Inches of rainfall. | | | | | |
|---|---|---|---|---|---|---|---|
| | | November. | December. | January. | February. | March. | Total. |
| Peshawar and Derajat | 5 | 0·40 | 0·45 | 0·80 | 0·92 | 1·28 | 3·85 |
| Hazara and Patwar | 6 | 1·16 | 1·67 | 2·17 | 3·16 | 3·06 | 11·22 |
| The four Doabs | 11 | 0·20 | 0·54 | 0·87 | 1·08 | 1·09 | 3·78 |
| Eastern Punjab | 11 | 0·08 | 0·54 | 1·03 | 0·95 | 0·94 | 3·54 |
| Kangra, Kulu, Sirmoor and Kumaon | 21 | 0·36 | 1·14 | 2·50 | 3·49 | 3·25 | 10·74 |
| N.-W. P. and Oudh, Western half[1] | 30 | 0·06 | 0·30 | 0·88 | 0·64 | 0·55 | 2·43 |
| Ditto ditto, Eastern half | 14 | 0·11 | 0·11 | 0·72 | 0·50 | 0·32 | 1·76 |
| North Behar | 8 | 0·10 | 0·09 | 0·57 | 0·59 | 0·44 | 1·79 |
| Northern Bengal | 8 | 0·32 | 0·14 | 0·42 | 0·77 | 1·16 | 2·81 |
| Assam and Cachar | 17 | 0·88 | 0·45 | 0·72 | 1·34 | 3·43 | 6·82 |
| Upper Sind | 3 | 0·07 | 0·15 | 0·29 | 0·34 | 0·40 | 1·25 |
| Lower Sind, Cutch and Guzerat | 21 | 0·08 | 0·07 | 0·12 | 0·15 | 0·07 | 0·49 |
| Rajputana | 19 | 0·09 | 0·24 | 0·18 | 0·28 | 0·14 | 0·93 |
| Central India, &c. | 22 | 0·18 | 0·18 | 0·43 | 0·37 | 0·21 | 1·37 |
| Mirzapur, South Behar, and Chutia-Nagpur. | 20 | 0·25 | 0·13 | 0·60 | 0·74 | 0·58 | 2·30 |
| Lower Bengal | 20 | 0·50 | 0·24 | 0·46 | 1·09 | 1·74 | 4·03 |

[1] The meridian of Lucknow is taken as the boundary.

The above table includes the whole of extra-tropical India, and it is only in a portion of this region that the cold-weather rainfall can be regarded as a well-marked and regularly recurrent phenomenon, having a distinct maximum in the winter or spring months, and equally defined minima before and after. The variations shown in the above table are considerable, both as regards the total amount and epoch of the maximum. It is on the North-West Himalaya and the hills of the Northern Punjab that these rains are most copious, and that the maximum falls latest; the precipitation frequently taking the form of snow at all but the less elevated stations. In the extreme north-west, they attain their maximum in March and April, for at Peshawar and in the hills of Hazara, the April rainfall (not shown in the table) is about equal to that of March, while that of May and June is insignificant. But south of the Salt range and on the plains of the Eastern Punjab, the rainfall of February and March exceeds that of April. Still further to the south-east, throughout the

greater part of the Gangetic plain, the maximum occurs still earlier, *viz.*, in January, and this holds good as far as Behar and the confines of Northern Bengal. This anticipation of the maximum is not due to the January rainfall of the Gangetic plain being heavier than that of the Punjab. On the contrary it is rather less; but the decrease in a south and south-east direction is much less rapid in January than in the subsequent months. In Northern Bengal, even the January maximum has vanished; and while the average rainfall of that month is only slightly less than in Behar and the eastern part of the North-Western Provinces, that of February is higher, and that of March shows a further considerable increase. So far, the course of the variation seems to resemble that of the North-West Punjab; but the further steady increase of the fall in April, May and June, shows that this resemblance is fallacious, and that we have here to do with a phenomenon of a different order, *viz.*, the storm precipitation of the spring months; the characteristics of which are still more pronounced in the more easterly province of Assam. As a well-marked feature of the local meteorology, the cold-weather rainfall does not extend in an easterly direction beyond the province of Behar.

Turning now to regions somewhat further south, but still for the most part without the tropic, we see that, in Upper Sind, the total fall of the five months is very small, notwithstanding that it represents nearly one-third of that of the year; and also that, as in the Derajat, it reaches its maximum in March. In Lower Sind, Cutch and Guzerat the whole precipitation of the season is insignificant; but a maximum is still faintly indicated in February, and the same is more strongly marked in Rajputana, where the fall is about double as great. In Rajputana, it would appear that the December rainfall is almost as great as that of February; but this is mainly due to an exceptionally heavy rainfall in December 1877,[1] combined with the fact that the Rajputana registers extend over a shorter period than those of most other parts of the country. I do not think, therefore, that, on the average of a long period of years, the November rainfall of Rajputana would be found to follow a different law of distribution from that of other provinces around. In Central India, including those portions of the Central Provinces and the North-Western Provinces, that extend between the Jamna and the Satpura range, the total fall is again higher, with a maximum in January and February; and still further east, in Mirzapur, South Behar, and Chutia Nagpur, it is again greater, with the maximum in February: but this apparent retardation of the maximum is evidently due to the inclusion of the early spring storms, which, in Chutia Nagpur, become of relatively greater importance; and this is rendered further evident in the table for Lower Bengal.

The conditions which determine the storm precipitation of the spring months will be noticed in the next section. Meanwhile, it results from the above analysis, that the cold-weather rainfall, as here considered, is that which takes place chiefly on the north and east of the barometric depressions, which are occasionally formed in the winter months in North-Western India. It is most copious where normally the winter temperature is lowest, *viz.*, on the North-West Himalaya. It decreases rapidly to the south and less rapidly to the south-east; and in this latter direction, it blends into, and becomes with difficulty distinguishable from the rainfall of the spring storms, which are, however, a phenomenon of a different order.

[1] On this occasion nearly 5 inches of rain were registered at Banswara, between 3 and 4 inches at Jhalrapatan and Ulwar, and over 2 inches at Kotah, Deoli and Bhurtpur.

Having thus defined the area and noticed the general characteristics of the winter rainfall of North-Western India, I return to the question of the origin of those barometric depressions, which have been shown to be the immediate precursors of the precipitation, or perhaps rather of simultaneous formation. The area, above defined as that of the winter rains, is identical with that in which, as has long been known, the relative humidity of the air, instead of diminishing towards the interior of the country, increases with increasing distance from the sea-coast. On page 203 of the "Indian Meteorologists' Vade-Mecum" (Part II, para. 109) I described this phenomenon as follows: "In the maritime provinces (of India) there are but one (annual) period of maximum and one of minimum humidity; in the Punjab and in Central India and the North-Western Provinces, there are two annual maxima and two minima, and in the drier part of the first-named province, the winter is the dampest season of the year . . . . Stations on the coast line have, at all times of the year, a higher degree of relative humidity than those on the plains of the interior. But the rate of increase is very different at different seasons; and in consequence of the greater cold of upper and extra-tropical India in the first three months of the year, the rule of increasing dryness with increasing distance from the coast holds good inland only as far as Behar; and thence to the Punjab the relative humidity of the atmosphere increases steadily. It appears to be higher also in Central India, north of the Satpuras, but the meteorological statistics of this tract have not yet been sufficiently worked out to enable us to fix the limits of the area of higher winter humidity."

The above passage was written in 1876, only a year after the meteorological data for the whole of India had been for the first time concentrated in one Central Office, and when the system of observation had been but recently extended to many stations in Rajputana and Central India. It is, therefore, desirable to set forth in a tabular form some excerpts from the further evidence which has now been put on record; and to this end, I give in the following tables, first the absolute humidity of the air as represented by the proportion of vapour in 1,000 parts of air; second, the relative humidity; and third, the cloud proportion (in thousandths of the sky expanse)[1] in each of the six months, November to April, for four series of stations; three passing successively from east to west (or north-west) and representing respectively the Himalaya, the alluvial plain, and the plateau which extends between the latter and the Satpura range; and the fourth passing from the south to the north, beginning with three stations south of the Satpura range and terminating in the Punjab.

*Mean absolute and relative humidity of the air and proportion of cloud in Northern India in the winter and spring months.*

| Stations. | Elevation in feet. | Miles from sea. | Volume of vapour in 1,000 of air. | | | | | | Percentage of saturation. | | | | | | Cloud proportion $\frac{x}{1,000}$ | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Nov. | Dec. | Jan. | Feb. | Mar. | April. | Nov. | Dec. | Jan. | Feb. | Mar. | April. | Nov. | Dec. | Jan. | Feb. | Mar. | April. |
| Darjeeling | 6,712 | 375 | 12 | 9 | 9 | 10 | 12 | 15 | 75 | 73 | 78 | 78 | 71 | 77 | 439 | 425 | 569 | 592 | 531 | 614 |
| Ranikhet | 6,069 | 730 | 10 | 8 | 8 | 8 | 10 | 11 | 58 | 56 | 59 | 60 | 55 | 47 | 122 | 270 | 344 | 461 | 378 | 335 |
| Chakrata | 7,050 | 750 | 9 | 6 | 6 | 7 | 8 | 10 | 58 | 52 | 61 | 58 | 54 | 47 | 153 | 351 | 413 | 539 | 465 | 385 |
| Murree | 6,344 | 750 | 7 | 6 | 5 | 6 | 8 | 10 | 43 | 49 | 48 | 57 | 51 | 50 | 315 | 455 | 516 | 541 | 595 | 520 |

[1] The figures of the two latter tables are extracted from those of the average values of the several meteorological elements given in the Report on the Meteorology of India in 1881.

*Mean absolute and relative humidity of the air and proportion of cloud in Northern India in the winter and spring months*—continued.

| Stations. | Elevation in feet. | Miles from sea. | Volume of vapour in 1,000 of air. | | | | | | Percentage of saturation. | | | | | | Cloud proportion $\frac{1}{1,000}$. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Nov. | Dec. | Jan. | Feb. | Mar. | April. | Nov. | Dec. | Jan. | Feb. | Mar. | April. | Nov. | Dec. | Jan. | Feb. | Mar. | April. |
| Saugor Island | 6 | 0 | 22 | 17 | 18 | 23 | 27 | 32 | 74 | 73 | 75 | 77 | 78 | 80 | 248 | 180 | 180 | 188 | 356 | 474 |
| Calcutta | 18 | 65 | 20 | 15 | 14 | 18 | 22 | 28 | 74 | 71 | 70 | 69 | 69 | 73 | 220 | 196 | 127 | 192 | 225 | 265 |
| Jessore | 33 | 95 | 20 | 16 | 14 | 16 | 21 | 27* | 68 | 63 | 60 | 55 | 55 | 62 | 210 | 132 | 158 | 176 | 274 | 336 |
| Berhampore | 66 | 176 | 18 | 14 | 12 | 14 | 18 | 22 | 72 | 71 | 69 | 65 | 58 | 62 | 257 | 194 | 215 | 192 | 291 | 320 |
| Purneah | 125 | 295 | 17 | 14 | 12 | 13 | 16 | 21 | 70 | 69 | 66 | 59 | 55 | 56 | 93 | 107 | 122 | 113 | 140 | 150 |
| Patna | 179 | 307 | 15 | 12 | 12 | 13 | 14 | 16 | 57 | 60 | 60 | 55 | 43 | 39 | 176 | 201 | 249 | 275 | 315 | 233 |
| Benares | 267 | 368 | 13 | 10 | 10 | 11 | 12 | 13 | 62 | 64 | 63 | 57 | 43 | 36 | 120 | 162 | 222 | 240 | 217 | 184 |
| Allahabad | 307 | 430 | 14 | 12 | 11 | 12 | 13 | 15 | 63 | 68 | 67 | 60 | 46 | 36 | 92 | 163 | 193 | 222 | 189 | 143 |
| Lucknow | 369 | 550 | 12 | 10 | 10 | 11 | 14 | 15 | 53 | 58 | 59 | 55 | 46 | 37 | 91 | 192 | 282 | 333 | 291 | 222 |
| Bareilly | 568 | 665 | 13 | 10 | 10 | 11 | 14 | 15 | 59 | 64 | 64 | 61 | 53 | 41 | 67 | 177 | 271 | 309 | 261 | 177 |
| Roorkee | 887 | 690 | 12 | 10 | 10 | 10 | 12 | 12 | 57 | 64 | 65 | 62 | 52 | 36 | 87 | 222 | 285 | 358 | 264 | 227 |
| Ludhiana | 812 | 690 | 10 | 9 | 9 | 11 | 12 | 15 | 51 | 62 | 63 | 63 | 57 | 50 | 155 | 249 | 333 | 389 | 386 | 264 |
| Sialkot | 829 | 717 | 11 | 10 | 10 | 10 | 13 | 14 | 56 | 68 | 68 | 67 | 58 | 42 | 214 | 309 | 404 | 443 | 448 | 367 |
| Rawalpindi | 1,652 | 730 | 10 | 9 | 8 | 9 | 12 | 16 | 62 | 67 | 67 | 68 | 63 | 59 | 199 | 305 | 388 | 442 | 439 | 382 |
| Hazaribagh | 2,010 | 205 | 12 | 10 | 9 | 10 | 10 | 12 | 53 | 52 | 51 | 44 | 36 | 32 | 203 | 192 | 236 | 211 | 258 | 262 |
| Sutna | 1,040 | 450 | 10 | 8 | 8 | 9 | 8 | 10 | 42 | 48 | 47 | 41 | 29 | 25 | 137 | 162 | 216 | 292 | 262 | 252 |
| Jhansi | 855 | 490 | 10 | 9 | 9 | 10 | 11 | 12 | 39 | 45 | 47 | 42 | 34 | 28 | 29* | 38* | 66* | 75* | 40* | 46* |
| Neemuch | 1,639 | 280 | 9 | 7 | 7 | 8 | 9 | 11 | 35 | 38 | 35 | 35 | 30 | 26 | 63 | 149 | 151 | 310 | 234 | 230 |
| Ajmere | 1,611 | 410 | 11 | 9 | 9 | 10 | 12 | 15 | 45 | 49 | 47 | 46 | 42 | 38 | 101 | 152 | 245 | 273 | 280 | 249 |
| Raipur | 960 | 270 | 16 | 12 | 12 | 14 | 13 | 15 | 60 | 56 | 55 | 51 | 41 | 36 | 168 | 127 | 132 | 112 | 165 | 209 |
| Nagpur | 1,025 | 350 | 14 | 12 | 11 | 12 | 11 | 13 | 52 | 50 | 49 | 42 | 32 | 28 | 257 | 238 | 233 | 194 | 255 | 305 |
| Akola | 930 | 270 | 13 | 11 | 10 | 10 | 11 | 10 | 50 | 48 | 44 | 37 | 28 | 22 | 134 | 146 | 139 | 199 | 127 | 128 |
| Jubbulpore | 1,351 | 420 | 13 | 10 | 11 | 12 | 13 | 13 | 57 | 56 | 58 | 53 | 40 | 32 | 171 | 197 | 218 | 238 | 246 | 217 |
| Sutna | 1,040 | 450 | 10 | 8 | 8 | 9 | 8 | 10 | 42 | 48 | 47 | 41 | 29 | 25 | 137 | 162 | 216 | 292 | 262 | 252 |
| Nowgong | 757 | 515 | 11 | 10 | 9 | 10 | 11 | 14 | 50 | 56 | 52 | 48 | 37 | 31 | 91 | 153 | 182 | 365 | 240 | 205 |
| Jhansi | 855 | 490 | 10 | 9 | 9 | 10 | 11 | 12 | 39 | 45 | 47 | 42 | 34 | 28 | 29* | 38* | 66* | 75* | 40* | 46* |
| Agra | 555 | 540 | 11 | 9 | 9 | 10 | 11 | 13 | 43 | 53 | 55 | 49 | 40 | 31 | 54 | 131 | 167 | 245 | 175 | 144 |
| Delhi | 718 | 615 | 11 | 9 | 9 | 10 | 12 | 13 | 46 | 53 | 55 | 52 | 45 | 34 | 80 | 176 | 309 | 334 | 299 | 269 |
| Ludhiana | 812 | 690 | 10 | 9 | 9 | 11 | 12 | 15 | 51 | 62 | 63 | 63 | 57 | 50 | 155 | 249 | 333 | 389 | 386 | 264 |

* These estimates of cloud proportion are probably affected by a large personal equation.

The above table confirms and justifies the description already quoted from the "Vade-Mecum;" and also the generalization just given, that the area of the winter secondary rainfall maximum coincides with that in which there is also a winter secondary maximum of relative humidity. But it also brings into prominence some further facts, which assist in throwing much light on the causes of the rainfall. In the first place, it is to be noticed that the increase of the relative humidity of the later months, as we proceed from Behar towards the Punjab, is due solely to the fall of temperature, the absolute humidity being almost constant; but the latter is decidedly lower on the high ground of Central India and Rajputana, south of the Gangetic plain, than on the latter and in the Punjab. These two facts, *viz.*, the uniformity of the absolute humidity over the riverain tract, and its decrease on the higher ground to the south, indicate that it is mainly dependent on local

evaporation, being, in fact, furnished by the rivers, the undried swamps left by the autumnal floods, and in no small degree, probably, by irrigation and the rich vegetation of the green winter crops. In the second place, it is to be observed that this riverain tract also coincides with the region of lower normal pressure, to the north of the axis of maximum pressure, shown on the normal baric charts on Plate III.

And lastly, the tendency to cloud formation follows, on the whole, the same scheme of distribution as the relative humidity of the lower atmosphere; with, however, this important exception, that, except in April, and to a slight extent in March, it is lower in the neighbourhood of the coast, (in Lower Bengal) notwithstanding the higher relative humidity of the lower atmosphere, than in the Upper Provinces, where the rainfall generally originates.

Now, putting together the several facts thus independently elicited from the study of our registers, we arrive, I think, at the outlines of a consistent theory of the production of the winter rainfall. We have, in the first instance, steady evaporation over an extensive moderately humid tract, at a comparatively low temperature, it is true, but in an atmosphere, the stillness of which allows of steady diffusion of the vapour to high levels, and the consequent formation of cloud. The slight disturbance of the baric equilibrium which follows, is succeeded by a gentle indraught of warmer and more humid air from the south; for the Himalaya bars access to northerly winds. A vortex is then rapidly formed, accompanied with an increased cloud formation, and speedily followed by precipitation; which takes the form of snow on the hills, and of rain over the river plains. The rainfall is invariably followed by a cool wind, and a wave of high barometric pressure from the west, which I can only attribute to a drainage of cool heavy air from the valleys of the hills surrounding the Punjab, and the high lands of Beluchistan and Afghanistan, air cooled by the precipitation on the mountains.

If the above view be true, the stillness of the atmosphere, combined with the presence of a moderate evaporation, must be accepted as the condition which primarily determines the formation of barometric minima and the winter rains of Northern India. And this stillness is obviously due to the existence of the lofty mountain ranges which surround Northern India, leaving free access to the plains open only to the south.

Were the Himalayan chain absent, and replaced by an unbroken plain stretching up to the Gobi desert, it is probable that the winter rains of Northern India would cease; any local evaporation in the Punjab and Gangetic valley would be swept away by strong dry north-east winds blowing from the seat of high pressure, which, in the winter months lies in Central Asia; and instead of the mild weather and gentle breezes which now prevail at that season on the Arabian Sea, it would be the theatre of a boisterous and even stormy monsoon, such as is its local equivalent of the China Seas. Other and even greater changes of climate that would supervene on the suppression of the Himalayan range, and the consequent alteration of the summer monsoon, its precipitation and the course of the land drainage thereby fed, it would be beyond the province of my present subject to discuss.

## THE SPRING STORM-RAINFALL.

Following the order of the seasons' succession, I now come, finally, to consider the storm rainfall, which especially characterizes the spring and early summer months. In the previous section, I have pointed out two features which distinguish this rainfall from that of the cold weather in Northern India, *viz.*, that it increases steadily in copiousness with the advance of the year, in other words, with the rising temperature; and, geographically regarded, we shall find that, in the peninsula, it is mainly restricted to the southern and eastern provinces; and in extra-tropical India, most developed in the eastern half, in Bengal and Assam; whereas, the cold-weather rainfall is restricted to Northern, mainly to North-Western India, and, after attaining its maximum in one of the earlier months of the year, is followed by a drier interval of about two months, prior to the setting-in of the summer monsoon. The following comparative table of the rainfall of the first six months of the year, in North-Western and North-Eastern India respectively, which is an extension of a portion of the table already given on page 89, exhibits these distinctions very conspicuously:—

*Comparative table of the seasonal variation of the rainfall in North-Western and North-Eastern India from January to June.*

| | Provinces. | Stations. | Rainfall in Inches. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | January. | February. | March. | April. | May. | June. |
| North-West | Peshawar and Derajat | 5 | 0·80 | 0·92 | 1·28 | 1·19 | 0·67 | 0·75 |
| | Hazara and Pathwar | 6 | 2·17 | 3·16 | 3·06 | 2·94 | 2·31 | 2·57 |
| | The four Doabs | 11 | 0·87 | 1·08 | 1·09 | 0·71 | 0·67 | 1·68 |
| North-East | Northern Bengal | 8 | 0·42 | 0·77 | 1·16 | 3·18 | 8·46 | 19·11 |
| | Lower Bengal | 20 | 0·46 | 1·09 | 1·74 | 3·02 | 6·41 | 12·45 |
| | Assam and Cachar | 17 | 0·72 | 1·34 | 3·43 | 6·74 | 12·00 | 18·53 |

The spring rainfall thus increases rapidly with the increase of temperature, about doubling itself in each successive month, on an average; and it is further characterized by the not infrequent accompaniment of hail, and almost invariably by a considerable amount of electrical discharge. In all these features, it resembles the summer precipitation of the temperate zone. It is usually ushered in by the formation of lofty towering masses of cumulus cloud; and the storms, which it accompanies, occur, most frequently, after the diurnal maximum of temperature, the most usual hours being from 5 to 9 P.M. The cold-weather rainfall, on the other hand, is usually preceded by the quiet formation of a sheet of pallio-cirrus; any electrical discharge is exceptional, and any diurnal period of frequency is but faintly exhibited, there being only a slight increase of fall towards the warmer hours of the day.[1]

Yet further points of contrast are, that, whereas the cold-weather rainfall is usually pretty uniform over an extensive area and but moderately copious, (being, in fact, the

[1] These conclusions are drawn from an analysis of the rainfall registers of Calcutta, published in 1879, in Vol. XLII of the Journal of the Asiatic Society of Bengal, Part II, p. 41.

gentle precipitation around a more or less extensive barometric depression of casual formation,) and, after lasting for one or two days, is followed by a barometric rise and a general clearing of the atmosphere, that of the spring storms is sporadic and subject to great local variation, short-lived, locally heavy, and frequently repeated day after day, for many days in succession, about the same hours. The barometric oscillations during the storms are considerable and rapid, but due to purely local causes,[1] and the general scheme of pressure-distribution characteristic of the season is but little changed.

These numerous and well-marked differences of feature seem then to justify the distinction I have drawn between the winter and spring rains; and this, notwithstanding that, in point of time, the one form of precipitation gives way gradually to the other, and that, in point of geographical distribution, no very definite limit can be assigned to the regions of their respective prevalence in Northern India. The cold-weather rains in their characteristic form are not infrequently experienced in Lower Bengal, and the nor'-westers of Bengal graduate, by indefinite degrees of variation, into the almost rainless dust storms of the hot season in the Punjab.

Before proceeding to describe the distribution of the spring rainfall, which, I may remark, presents not a few features of much interest in connection with the theory of rainfall, I will briefly notice the distribution of atmospheric pressure, and the wind system characteristic of the months from March to May, (the hot season,) in which thunder storms are most frequent. This is shown in Plate IV. These charts, taken in conjunction with those for February on Plate III and that for June on Plate V, show how the type of pressure distribution, characteristic of the cold season, gradually passes into that which ushers in the monsoon rains; the change being due to the rapid but unequal rise of temperature over the land area, combined with the gradual introduction of vapour from the seas around; and secondarily, and in some measure, I think, to the movements of the air under the influence of the earth's rotation.

In February, the distribution of pressure is still that which has been already described as typical of the cold season. There is a large area of high pressure in Northern India, the axis of which runs from the Punjab across Rajputana and Central India to the confines of Chutia Nagpur. In the Ganges valley on the north, and over the peninsula to the south, the pressure is slightly lower, and the region of lowest pressure is along the west coast. In March, the rapid rise of temperature causes a general fall of pressure over the land, somewhat greater in the east than in the west, and greater, also, in Northern than Southern India. The pressure, over the greater part of the land area, then becomes nearly uniform, and slightly below that of the seas around; the most striking exception to this uniformity being that, on the plateau of Eastern Rajputana and Central India, in Guzerat, Cutch, and Sind, the fall is less than elsewhere around; and this region remains with a somewhat higher pressure, and surrounded by an anticyclonic system of winds on the west, north, and east.

Around the coasts of India, the winds have a very decided cyclonic circulation, combined with indraught; and there are two regions, towards which this indraught is most active, and where the pressure appears to be slightly lower than elsewhere. One of these is on the Bellary plateau, the other in North-Western Bengal; and between the high

[1] See, *e.g.*, Mr. J. Eliot's Discussion of Storms of this Season, Indian Meteorological Memoirs, Vol. I, No. IV, pp. 119—145.

pressure region of Rajputana and these two seats of depression, very dry winds set in from between north and west; being more northerly in Berar and the northern part of the Bombay Presidency, and more westerly in the Gangetic plain and Bundelkhand. These are the characteristic land winds of the spring and early summer; and, as the land surface, over which they blow, becomes more and more heated, they gradually acquire the high temperature which has gained for them the local name of "the hot winds."

The system of wind and pressure distribution, thus established, undergoes a further modification in April and May. Owing to the more rapid decrease of pressure in Northern than in Southern India, a consequence, mainly, of the more rapid rise of temperature, the seat of minimum pressure becomes concentrated in the Gangetic valley, with offsets in the Chutia Nagpur region and the desert of Bickaneer; while the plateau of Eastern Rajputana and Central India still interposes a region of somewhat higher pressure, but less high than that prevailing in the peninsula. The north-west winds of Western India become less northerly and more westerly, but they retain their other characteristics, and, in these months, are emphatically *the hot winds*.

The source and causes of these hot winds and of winds of a similar character in Australia and elsewhere, have been a subject of speculation to several writers, among others, Mr. Laughton, Mr. F. Chambers, and myself. It would be digressing from the essential subject-matter of this memoir, were I to enter at any length on the discussion of the views put forward by these authors; at one time I was myself inclined to the view advocated by Mr. Laughton that they are winds of elastic expansion, and I endeavoured to work out this idea, on the assumption that the very lofty and most attenuated strata of the atmosphere, in virtue of their extreme cold, so resisted and retarded the communication of pressure, as to limit the upward expansion of the atmosphere under its diurnal heating, and to compel lateral expansion. But without rejecting this as, at least, a possible condition,[1] further experience and consideration have convinced me that very much, perhaps all, of the phenomena of these winds are susceptible of a less recondite explanation. And more especially the happy suggestion of Dr. W. Köppen, which affords a simple explanation of the diurnal variation of the velocity of these winds with the temperature, by referring it to convective interchange between the lower, retarded, and the higher and more rapidly moving strata of wind, has cleared up one of their most striking peculiarities, which seemed to point to the theory of elastic expansion.

The charts show pretty clearly what is the true character of these winds in Western and Northern India. In their origin, they are partly the long-shore winds of the Mekran coast, but chiefly a drainage of air from the mountain region on the west and north-west, which is drawn towards the chief seats of minimum pressure in Northern Bengal, Chutia Nagpur, and the Deccan plateau. Coming originally from a dry region, they are rendered still drier, partly by the heat of the almost waterless plains of Rajputana, partly by the dynamic heating which the air from the mountain tract must necessarily suffer in descending to lower levels; and thus they attain to such a degree of desiccation, that the vapour constituent, at the hottest time of day, sometimes does not exceed 4 or 5 per cent. of that required for saturation,[2] being less than three parts by volume of vapour in 1,000 of air.

[1] Some such assumption seems necessary to explain the forenoon maximum of barometric pressure.

[2] See, *e.g.*, Report on the Meteorology of India in 1879. Text, pages 99 and 100.

THE BOMBAY PRESIDENCY, BERAR, AND HYDERABAD.—The almost exclusive prevalence of winds of this character in Western India, and in the west of the peninsula, as far south as Dharwar,—a prevalence which is in accordance with the well-known law of cyclonic indraught towards the barometric minima of the Deccan, Chutia Nagpur, and Northern Bengal,—explains why the storm rainfall of the spring months is scarcely ever experienced in any part of the Bombay presidency north of Dharwar. This northerly character of the winds of Western India is not restricted to the high level of the Deccan plateau, which is the local seat of the barometric minimum. Even in the Konkan, 2,000 feet or more below the crest of the Western Ghats, the northern component of the prevalent winds, up to the end of April, is very marked, as is shown in the wind tables of Bombay published by Mr. C. Chambers;[1] but it is here combined with the diurnal alternations of the land and sea winds. It is more or less dominant as far south as N. latitude 16°; but further south, still in strict accordance with the cyclonic law, southerly elements predominate, and this is also the limit, up to which, spring showers, chiefly in April and May, are a normal feature of the climate above the ghats.

The following table of the rainfall, from March to May, at a number of stations in Sind and Cutch, Guzerat, Rajputana and Central India, Berar, the North Deccan, and Konkan, illustrates the region of prevalent land or north-westerly winds. Those of Dharwar and Mysore with South Canara and Malabar, including a number of Ghat stations, given in a subsequent table, show where the influence of the vapour-bearing winds becomes appreciable:—

*Spring rainfall of Western India.*

| Provinces. | Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|---|
| | | | | March. | April. | May. | Total. |
| Sind and Cutch | 259 | Jacobabad | 186 | 0·33 | 0·16 | 0·11 | 0·60 |
| | 265 | Hyderabad | 66 | 0·09 | 0·24 | 0·04 | 0·37 |
| | 263 | Kurrachee | 49 | 0·15 | 0·18 | 0·05 | 0·38 |
| | 266 | Umarkot | 100 | 0·14 | 0·17 | 0·09 | 0·40 |
| | 267 | Nagar Parker | 100 | 0·06 | 0·03 | 0·30 | 0·39 |
| | 268 | Bhuj | 395 | 0·13 | 0·19 | 0·17 | 0·49 |
| Rajputana | 106 | Bickaneer | 742 | 0·08 | 0·26 | 1·80 | 2·14 |
| | 109 | Jeypore | 1,592 | 0·20 | 0·24 | 0·72 | 1·16 |
| | 111 | Ajmere | 1,611 | 0·43 | 0·11 | 0·71 | 1·25 |
| | 117 | Jodhpur | 1,274 | 0·05 | 0·02 | 0·57 | 0·64 |
| | 115 | Deoli | 1,122 | 0·16 | 0·19 | 1·15 | 1·50 |
| | 116 | Shahpura | 1,400 | 0·21 | 0·04 | 0·98 | 1·23 |
| | 119 | Erinpoora | 1,142 | 0·07 | 0·04 | 0·50 | 0·61 |
| | 122 | Oodeypore | 2,469 | 0·04 | ... | 0·61 | 0·65 |
| | 129 | Neemuch | 1,639 | 0·14 | 0·10 | 0·59 | 0·83 |
| | 126 | Banswara | 1,500 | ... | ... | 0·35 | 0·35 |
| Guzerat | 269 | Deesa | 465 | 0·10 | 0·05 | 0·18 | 0·33 |
| | 271 | Edar | 900 | ... | 0·02 | 0·76 | 0·78 |
| | 272 | Ahmedabad | 200 | 0·02 | 0·04 | 0·71 | 0·77 |
| | 275 | Bariya | 1,100 | 0·01 | ... | 0·19 | 0·20 |
| | 276 | Wadhwan | 231 | 0·09 | 0·02 | 0·03 | 0·14 |

[1] Meteorology of the Bombay Presidency, page 95.

*Spring rainfall of Western India*—continued.

| Provinces. | Appendix Numbers. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|---|
| | | | | March. | April. | May. | Total. |
| Guzerat—*contd.* | 277 | Rajkot | 429 | 0·02 | 0·01 | 0·35 | 0·38 |
| | 278 | Manekwara | 500 | 0·11 | 0·15 | 0·21 | 0·47 |
| | 279 | Songad | 100 | 0·06 | 0·04 | 0·19 | 0·29 |
| | 280 | Broach | 58 | 0·01 | 0·01 | 0·10 | 0·12 |
| Konkan and Ghats. | 281 | Surat | 36 | ... | ... | 0·12 | 0·12 |
| | 282 | Igatpuri | 1,922 | 0·06 | 0·09 | 1·16 | 1·31 |
| | 283 | Tanna | 24 | 0·01 | ... | 0·42 | 0·43 |
| | 284a | Bombay | 37 | ... | 0·03 | 0·56 | 0·59 |
| | 285 | Matheran | 2,200 | 0·02 | 0·01 | 0·45 | 0·48 |
| | 287 | Mahableshwar | 4,540 | 0·39 | 0·88 | 1·28 | 2·55 |
| | 288 | Ratnagiri | 110 | ... | 0·17 | 1·49 | 1·66 |
| | 289 | Baura | 2,800 | 0·02 | 0·65 | 2·50 | 3·17 |
| | 290 | Vingurla | 100 | 0·07 | 0·07 | 1·92 | 2·06 |
| | 292 | Karwar | 44 | 0·07 | 0·34 | 3·00 | 3·41 |
| | 293 | Honawar | 50 | 0·16 | 0·30 | 3·62 | 4·08 |
| Khandesh and North Deccan. | 294 | Dhulia | 1,000 | ... | 0·02 | 0·37 | 0·39 |
| | 295 | Malegaon | 1,430 | 0·02 | 0·24 | 0·74 | 1·00 |
| | 296 | Nasik | 1,962 | ·002 | 0·08 | 0·61 | 0·71 |
| | 311 | Aurangabad | 1,700 | 0·02 | 0·05 | 0·90 | 0·97 |
| | 297 | Ahmednagar | 2,180 | 0·19 | 0·48 | 1·37 | 2·04 |
| | 314 | Bheem | 2,000 | 0·12 | 0·21 | 0·37 | 0·70 |
| | 298 | Poona | 1,819 | 0·18 | 0·56 | 1·64 | 2·38 |
| | 300 | Sholapur | 1,590 | 0·28 | 0·71 | 1·21 | 2·20 |
| | 299 | Satara | 2,200 | 0·08 | 0·90 | 1·37 | 2·35 |
| | 301 | Bijapur | 1,999 | 0·21 | 0·53 | 0·71 | 1·45 |
| | 302 | Kolhapur | 1,797 | 0·08 | 1·39 | 2·07 | 3·54 |
| Berar and Hyderabad. | 253 | Amraoti | 1,213 | 0·34 | 0·23 | 0·65 | 1·22 |
| | 254 | Akola | 930 | 0·46 | 0·11 | 0·21 | 0·78 |
| | 255 | Buldana | 2,132 | 0·28 | 0·28 | 0·48 | 1·04 |
| | 257 | Basim | 1,842 | 0·22 | 0·35 | 0·60 | 1·17 |
| | 256 | Yeotmal | 1,476 | 0·47 | 0·24 | 0·97 | 1·68 |
| | 312 | Hingoli | 1,600 | 0·24 | 0·48 | 0·75 | 1·47 |
| | 315 | Nandair | 1,276 | 0·19 | 0·30 | 0·73 | 1·22 |
| | 316 | Indur | 1,200 | 0·36 | 0·33 | 0·26 | 0·95 |
| | 318 | Medak | 1,100 | 0·47 | 0·92 | 0·51 | 1·90 |
| | 322 | Gulbarga | 1,508 | 0·32 | 0·74 | 1·41 | 2·47 |
| | 324 | Secunderabad | 1,787 | 0·78 | 0·71 | 1·41 | 2·90 |
| | 329 | Nagar Karnul | 1,200 | 0·53 | 0·50 | 1·33 | 2·39 |

Except at a few stations on the northern, southern, and eastern limits of the area here represented, and at Mahableshwar, the March rainfall is inappreciable; that of April is rather greater, but still very small; and only at one of the more southerly stations amounts to one inch. And that of May, which occurs when the pressure of Northern India has fallen considerably below that of the Deccan, and the winds of the latter region are losing much of their northerly character and becoming westerly, amounts to 2 or 3 inches, only in the Southern Konkan, and exceeds one inch at many stations in the Deccan. But the May rainfall of the Deccan, north of Dharwar, is not of the same character as that described above, as distinctive of the season, but is mainly the effect of a wide-spread disturbance which, perhaps in one year in five or six, follows on the formation of a cyclone in the Bay of Bengal. Since 1875, there has been but one general fall of this character, *viz.*, in 1879. In most years, May is almost as rainless as the two preceding months.

SOUTH-WESTERN INDIA.—Further south, however, the spring showers become more regular, and the registers show a considerable increase of the averages, more especially in April and May, as appears in the following table:—

*Spring rainfall of South-Western India.*

| Provinces. | Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|---|
| | | | | March. | April. | May. | Total. |
| Malabar and Ghats. | 399 | Mangalore | 52 | 0·13 | 2·79 | 8·56 | 10·88 |
| | 339 | Mercara | 3,694 | 1·18 | 2·27 | 6·05 | 9·50 |
| | 400 | Cannanore | 51 | 0·17 | 2·41 | 6·86 | 9·44 |
| | 403 | Calicut | 50 | 1·00 | 3·05 | 9·80 | 13·85 |
| | 402 | Manantoddy | 2,558 | 1·22 | 2·77 | 5·08 | 9·07 |
| | 404 | Palghat | 800 | 0·52 | 2·10 | 4·31 | 6·93 |
| | 405 | Cochin | 11 | 2·23 | 4·46 | 12·91 | 19·16 |
| Dharwar, Mysore, and Bellary plateau. | 305 | Belgaum | 2,550 | 0·50 | 2·04 | 2·83 | 5·37 |
| | 307 | Dharwar | 2,586 | 0·32 | 1·36 | 2·89 | 4·57 |
| | 309 | Kalghatgi | 2,100 | 0·28 | 1·23 | 1·65 | 3·14 |
| | 310 | Mandargi | 1,950 | 0·22 | 0·70 | 1·76 | 2·68 |
| | 359 | Bellary | 1,455 | 0·60 | 0·82 | 1·86 | 3·28 |
| | 332 | Shimoga | 1,900 | 0·33 | 1·78 | 3·28 | 5·39 |
| | 333 | Chitaldroog | 2,383 | 0·16 | 1·18 | 3·73 | 5·07 |
| | 334 | Chikmagalur | 3,418 | 0·97 | 1·82 | 5·32 | 8·11 |
| | 337 | Bangalore | 2,981 | 0·59 | 1·34 | 4·95 | 6·88 |
| | 340 | Mysore | 2,513 | 0·71 | 2·23 | 5·65 | 8·59 |

THE CARNATIC.—In the east of the peninsula the law of cyclonic circulation, which, in the Deccan, explains the prevalence of dry northerly winds, determines an influx of southerly winds more or less charged with vapour, as soon as the pressure over the interior begins to fall below that which prevails over the Bay of Bengal. On the

Coromandel coast, the north-east monsoon does not outlast the month of January. In February, the winds veer to the east; and, by March, to south-east, as far north as the mouths of the Godavery and Kistna. A further veering, in April and May, brings them round to south, when they constitute the well-known long-shore winds of Madras. Such, at least, is their mean direction. But this direction is modified by the alternation of the land and sea breezes; and, during the day, there is an active indraught towards the interior of the country, giving rise to local showers and thunder storms. These are especially prevalent in the neighbourhood of the Eastern Ghats and of the hill groups, from 3,900 to 4,000 feet in height and upwards, which range forward in advance of the central plateau. In describing the summer rainfall of the Carnatic on the previous page, I have already given some account of my personal experience in the Trichinopoly country, at the season now in question, and have noticed the influence of the hill groups to the west of that district, the Pachamullies and the Kolamullies, in determining the daily formation of a daily cloud bank over their summits. The rationale of this formation is well known. It is the result of the sun's action on the hill slopes, giving rise to a general convection of air towards the higher levels, and culminating in an ascending current over their summits. In this case, as in the formation of cumulus and rain cloud generally, the condensation of the vapour is brought about by the dynamic cooling of ascending and therefore expanding air.

The influence of the hills, in increasing the local rainfall of this season, is shown conspicuously in the following table, more especially in the month of May:—

*Spring rainfall of the Carnatic.*

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|
| | | | March. | April. | May. | Total. |
| 398 | Tinnevelly | 119 | 1·58 | 1·92 | 1·63 | 5·13 |
| 397 | Tuticorin | 20 | 0·87 | 1·39 | 0·94 | 3·20 |
| 394a | Madura | 448 | 0·65 | 2·25 | 2·72 | 5·62 |
| 392 | Dindigul | 700 | 0·30 | 1·80 | 3·13 | 5·23 |
| 386 | Negapatam | 15 | 0·13 | 1·08 | 1·79 | 3·00 |
| 387 | Tanjore | 364 | 0·51 | 0·91 | 1·63 | 3·05 |
| 389 | Trichinopoly | 275 | 0·74 | 2·02 | 3·58 | 6·34 |
| 390 | Karur | 380 | 0·35 | 1·91 | 3·93 | 6·19 |
| 391 | Coimbatore | 1,348 | 0·61 | 1·94 | 2·58 | 5·13 |
| 385 | Tranquebar | 20 | 0·08 | 1·20 | 1·51 | 2·79 |
| 384 | Kombakonam | 40 | 0·47 | 0·74 | 1·87 | 3·08 |
| 380 | Udayarpalaiyam | 150 | 0·10 | 0·79 | 3·23 | 4·12 |
| 378 | Vriddhachalam | 300 | 0·15 | 0·52 | 1·91 | 2·58 |
| 377 | Atur | 850 | 0·71 | 1·53 | 4·58 | 6·82 |
| 382 | Salem | 940 | 0·92 | 2·13 | 4·53 | 7·58 |
| 381 | Shevaroy hills (Yercaud) | 4,500 | 0·77 | 2·61 | 6·33 | 9·71 |
| 379 | Cuddalore | 20 | 0·34 | 1·03 | 1·43 | 2·80 |

*Spring rainfall of the Carnatic*—continued.

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|
| | | | March. | April. | May. | Total. |
| 374 | Tindivanam | 400 | 0·28 | 0·54 | 2·61 | 3·43 |
| 373 | Chingleput | 150 | 0·17 | 0·16 | 1·60 | 1·93 |
| 372 | Conjeeveram | 250 | 0·16 | 0·39 | 2·02 | 2·57 |
| 370 | Arcot | 558 | 0·45 | 0·57 | 2·58 | 3·60 |
| 369 | Vellore | 676 | 0·14 | 0·52 | 2·94 | 3·60 |
| 368 | Palmaner | 2 214 | 0·35 | 0·54 | 2·75 | 3·64 |
| 367 | Chittoor | 1,112 | 0·42 | 0·47 | 3·44 | 4·33 |
| 371 | Madras | 22 | 0·42 | 0·65 | 2·24 | 3·31 |
| 356 | Nellore | 20 | 0·28 | 0·13 | 1·35 | 1·76 |
| 353 | Ongole | 200 | 0·14 | 0·17 | 1·39 | 1·70 |
| 350 | Masulipatam | 10 | 0·34 | 0·05 | 1·75 | 2·14 |
| 351 | Guntur | 400 | 0·51 | 0·66 | 1·77 | 2·94 |
| 349 | Ellore | 78 | 0·38 | 0·67 | 1·56 | 2·61 |
| 348 | Rajahmundry | 68 | 0·22 | 1·04 | 3·16 | 4·42 |

The rainfall at Yercaud, on the Shevaroy hills, is here shown to be nearly three times as great as on the open plain along the coast; and nearly twice as great at Salem, (at the foot of the Shevaroys,) at Atur in a pass between two of the groups, and at Trichinopoly and Karur, which lie to the south of the central hill group, though at several miles distance. The lowest rainfall is on that part of the plain which extends between the Cuddapah Ghats and the sea. This has been shown to be also an abnormally dry tract throughout the summer monsoon; and some, at least, of the causes which contribute to produce this dryness have been noticed at a former place in connection with that season.

NORTHERN CIRCARS, JEYPORE,[1] AND ORISSA.—On the coast of the Northern Circars, the north-east monsoon ceases a month earlier than in the latitude of Madras; and throughout March, April, and May, the prevailing direction is south-west, modified by the diurnal alternation of the land and sea winds. This direction is, probably, in part due to that of the Eastern Ghats, which bound the plateau of Jeypore, and run parallel with this part of the coast at no great distance inland. But since the lower wind currents are in a measure influenced by those at higher levels, it is probably due in part also to the wind, above the level of the hill tract, setting cyclonically towards the region of low pressure in the east of the peninsula. Where the coast plain widens out, in Orissa, to the north of the Chilka lake, the set of the winds is more on shore or easterly.

In the following table I have given the spring rainfall of a number of stations in the Northern Circars, (the Madras districts of Vizagapatam and Ganjam), and also in the Jeypore zemindari, which occupies a plateau of about 2,000 feet in height, above the Eastern Ghats; also that of several stations in Orissa.

[1] It may be not superfluous to warn the European reader that the zemindari of Jeypore or Jaipur, here in question has no connection whatever with the better known state of the same name in Rajputana.

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*Spring rainfall of the Northern Circars, Jeypore, and Orissa.*

| Appendix No. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|
| | | | March. | April. | May. | Total. |
| 347 | Cocanada | 20 | 0·17 | 0·49 | 2·22 | 2·88 |
| 346 | Narsapatnam | 1,500 | 0·67 | 1·04 | 3·93 | 5·64 |
| 345 | Vizagapatam | 31 | 0·34 | 0·63 | 3·34 | 4·31 |
| 344 | Bimlipatam | 30 | 0·16 | 0·20 | 1·97 | 2·33 |
| 343 | Vizianagram | 40 | 0·80 | 0·43 | 2·78 | 4·01 |
| ... | Salur | 1,800 | 0·43 | 1·89 | 2·71 | 5·03 |
| ... | Koraput | 2,938 | 0·15 | 0·91 | 1·00 | 2·06 |
| ... | Parla Kimedi | 1,500 | 0·49 | 0·94 | 3·98 | 5·41 |
| ... | Parvatipur | 1,200 | 0·48 | 1·72 | 3·68 | 5·88 |
| ... | Rayaghadda | 1,800 | 1·33 | 2·22 | 5·25 | 8·80 |
| ... | Udayagiri | 2,021 | 1·45 | 3·06 | 5·30 | 9·81 |
| 342 | Ganjam | 40 | 0·95 | 0·96 | 1·62 | 3·53 |
| 341a | Aska | 600 | 1·29 | 1·63 | 3·35 | 6·27 |
| 210 | Pooree | 15 | 0·59 | 1·05 | 2·52 | 4·16 |
| 209 | False Point | 15 | 1·21 | 2·80 | 3·17 | 7·18 |
| 208 | Cuttack | 80 | 0·93 | 1·44 | 3·09 | 5·46 |
| 206 | Balasore | 90 | 1·74 | 3·25 | 4·78 | 9·77 |

This table exhibits features similar to those already noticed in the case of the Carnatic, but, on the whole, the rainfall is greater, especially that of May. Udayagiri and Rayagadda, on the hilly table-land, have the highest fall, in the Ganjam and Jeypore country; and such stations as Narsapatnam, Salur, Parla Kimedi, Parvatipur and Aska, in the interior and in the neighbourhood of the Ghats, show a marked excess over the stations on the coast line, *viz.*, Cocanada, Vizagapatam, Bimlipatam, and Ganjam. Only in Orissa does the coast rainfall at False Point and Balasore rise to more considerable proportions. The high rainfall of False Point is doubtless in a great measure due to its prominent position, at the most easterly point of the projecting limb of the Mahanadi delta, so that it catches the precipitation of any stormy weather that may be prevalent in the north of the Bay in April and May. Balasore is very near the Nilghar or Nilgiri hills of Orissa,[1] and the rainfall is doubtless influenced by these hills; but the spring rainfall of the whole of Orissa and Lower Bengal is more considerable than that of the eastern plains of the Madras Presidency, and the circumstances which determine this excess will be more conveniently considered in the description of the Bengal rainfall of that season.

CENTRAL PROVINCES, SOUTH.—The country to the west of the Jeypore table-land and Orissa, during the spring months, is included in the barometric minimum, which also embraces the North-Western Provinces and portions of the Punjab and Rajputana; and around Sambalpur the depression is as great as in any other part of Northern India. The movement of the air is therefore not very steady; but except in the Godavery valley,

[1] These little hills must not be confounded with the far better known Nilgiris of Southern India.

there is a decided preponderance of west winds, the characteristic dry winds of the season. Hence, except on the south and east, where southerly and easterly winds are more frequent, the spring rainfall of the greater part of the province is but slightly greater than that of Berar and the northern districts of the Deccan plateau. It increases, however, to the eastward, and also to the south in the Godavery valley, where south winds preponderate, as the following table shows :—

*Spring rainfall of the Central Provinces, South.*

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in Inches. | | | |
|---|---|---|---|---|---|---|
| | | | March. | April. | May. | Total. |
| 240 | Sambalpur | 451 | 0·71 | 0·51 | 1·54 | 2·76 |
| 238 | Bilaspur | 850 | 0·91 | 0·82 | 1·09 | 2·82 |
| 241 | Raipur | 960 | 0·63 | 0·58 | 0·78 | 1·99 |
| 242 | Dhamtari | 1,250 | 0·34 | 0·23 | 1·39 | 1·96 |
| 236 | Mandla | 1,487 | 0·79 | 0·54 | 0·56 | 1·89 |
| 243 | Bhandara | 854 | 0·49 | 0·57 | 1·18 | 2·24 |
| 248 | Brahmapuri | 700 | 0·66 | 0·38 | 0·85 | 1·89 |
| 249 | Chanda | 652 | 1·23 | 0·73 | 2·67 | 4·63 |
| 250 | Sironcha | 401 | 0·49 | 0·41 | 1·92 | 2·82 |
| 235 | Seoni | 2,030 | 0·47 | 0·60 | 0·90 | 1·97 |
| 232 | Pachmarhi | 3,504 | 0·37 | 029 | 0·63 | 1·29 |
| 234 | Chhindwara | 2,236 | 0·49 | 0·29 | 0·74 | 1·52 |
| 233 | Badnur (Betul) | 2,189 | 0·69 | 0·31 | 0·49 | 1·49 |
| 244 | Nagpur | 1,025 | 0·63 | 0·45 | 0·83 | 1·91 |
| 245 | Arvi | 1,200 | 0·54 | 0·17 | 0·64 | 1·35 |
| 246 | Wardha | 800 | 0·36 | 0·34 | 0·81 | 1·51 |

It is, therefore, only at the eastern and southern stations, Sambalpur, Belaspur, Raipur, Dhamtari, Chanda, Sironcha, &c., and at one or two, such as Bhandara and Seoni, favourably situated on the Satpuras or at their foot, that the total fall of the three spring months amounts on an average to 2 inches and upwards. At the most western stations, Arvi, Wardha, and Chhindwara, and even at Pachmarhi, notwithstanding its elevation, it is only about $1\frac{1}{2}$ inches or less. But Pachmarhi, in virtue of its position, is much exposed to the sweep of the north-west winds, which blow at this station with great steadiness. The relative advantage of the hill site is, however, seen, when the fall of Pachmarhi is compared with that of Hoshangabad, in the Nerbudda valley, not far from the northern foot of the Pachmarhi hills. This station has a total average of only 0·88 inch in the three months.

CHUTIA NAGPUR AND WESTERN BENGAL.—The general character of this tract has been already described in the notice of the summer rainfall. Intervening between the Central Provinces and Lower Bengal, it exhibits also intermediate hyetic features, the storm rainfall being more abundant in the east than in the west, and in the south than at more northerly stations. This last peculiarity appears to be due to the fact that the plateau of Hazaribagh and the Sonthal Pergunnahs is swept very persistently, in the

spring months, by the west wind blowing towards the barometric depression of Northern Bengal. Where it falls away towards the delta and the northern plain, the southerly and easterly winds, bringing vapour from the bay, creep in at the lower level, and the ascent and consequent cooling of these winds give rise to those frequent afternoon thunder storms, which, in Bengal, are known by the local name of "nor'-westers." As will be better seen in the tables for Bengal, these storms bring about a rapid increase of the rainfall, eastwards from the Hazaribagh plateau. The following table will suffice to show the general character of its distribution in the different parts of this province:—

*Spring rainfall of Chutia Nagpur and Western Bengal.*

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|
| | | | March. | April. | May. | Total. |
| 105 | Dudhi | 1,000 ? | 0·36 | 0·27 | 0·75 | 1·38 |
| 171 | Palamow | 1,210 | 0·72 | 0·38 | 1·11 | 2·21 |
| 173 | Ranchee | 2,169 | 1·40 | 0·69 | 1·97 | 4·06 |
| 172 | Hazaribagh | 2,010 | 0·69 | 0·40 | 1·53 | 2·62 |
| 176 | Chybassa | 746 | 1·48 | 0·87 | 3·67 | 6·02 |
| 177 | Purulia | 800 | 1·04 | 0·92 | 2·62 | 4·58 |
| 175 | Gobindpur | 800 | 0·53 | 0·68 | 2·06 | 3·27 |
| 174 | Nya Doomka | 120 | 0·65 | 1·14 | 3·34 | 5·13 |
| 158 | Godda | 200 | 0·37 | 0·41 | 2·42 | 3·20 |
| 157 | Bhagalpur | 159 | 0·38 | 0·90 | 2·48 | 3·76. |

One feature, to be noticed at the majority of the stations in this table and also in that of the South Central Provinces on the preceding page, but not in the provinces to the south or east, is that the March rainfall slightly exceeds that of April. In this respect, the variation of the rainfall is similar to that of the North-Western Provinces, already noticed in the previous section; and the explanation is doubtless the same, *viz.*, that the rainfall of March is, in part, due to those causes which determine the cold weather rainfall of Northern India; and we have here crossed the boundary of that region in which this rainfall becomes an appreciable feature in the registers.

LOWER BENGAL.—In Lower Bengal, which lies in a depression between the Hazaribagh plateau (2,000 feet), the Tipperah and Garo hills (of about the same average height), and the Himalaya, the north winds cease to predominate in February.[1] Indeed, in January, on the coast at Saugor Island, southerly winds are almost as frequent as those from northerly quarters; the latter predominating in the forenoon, the former, the sea winds, in the afternoon. By March at Calcutta, winds from northerly quarters have become reduced to 17 per cent., and south and south-west winds are predominant. The latter appear to be the sea wind, modified by an upper current from west or west-north-west; which latter is the west wind of the Hazaribagh plateau, preserving its course, at about the original level, above the sea wind, and mingling with it by convection in the

[1] See, *e.g.*, the wind tables of Calcutta in Volume I, p. 24 of this serial.

manner already described in the case of the upper and lower air currents of Upper India. Indeed, the diurnal variation of the wind at Calcutta, described in the first paper of Volume I of these memoirs, seems to prove this; since it has been shown that, during the hottest time of day, when therefore convection is most active, westerly wind components are at their maximum. The existence of the upper westerly current is, moreover, demonstrated by a fact which I have frequently observed, *viz.*, that with a strong southerly wind below, the summits of the cumulus and sometimes their whole mass is moving eastward. This southerly wind is comparatively a damp wind, notwithstanding the high temperature which it speedily acquires from the land surface; and it furnishes the abundant vapour, which, by convective cooling, is daily condensed as towers of cumulus, penetrating the drier upper atmosphere, and frequently, towards evening, results in those storms known locally as nor'-westers. The phenomena accompanying these storms are in some respects very striking, and have been described by Mr. J. Eliot in the fourth paper in the first volume of these memoirs. A very graphic, but somewhat indiscriminating account of a Calcutta nor'-wester, (mistaken by a writer for a cyclone,) is given at the end of M. Rousselet's well-known work on India. The following, which is more suitable to the present purpose, is extracted with but slight alteration from the *Indian Meteorologists' Vade-Mecum*, p. 231.

From Calcutta, throughout the months of March, April, and May, a low bank of clouds is frequently visible to the west and north-west in the afternoon; and on the approach of a *nor'-wester*, this rises higher and higher; a sheet of *pallio-cirrus*, frequently with a hard straight edge, advancing before the lower mass of the *pallio-cumulus*, At other times, a sheet of *cirro-stratus* forms over the greater part of the sky early in the afternoon, becomes thicker as the day advances, and at last a heavy mass of *pallio-cumulus* rolls up beneath it and completes the storm cloud. The approach of a nor'-wester is heralded by a sudden rise of the barometer,[1] and by a strong stormy wind, blowing outwards from beneath the storm cloud, and always either seaward, or at least from some point between east and round by north to south-west, (with very rare exceptions, from between north-west and west). I do not remember ever to have observed a storm advance from the direction of the sea. The wind that precedes the rain is very cool.[2] It raises clouds of dust and blows in gusts, sometimes with great force. Pressures of 50 lb to the square foot have been sometimes registered by it, on the Osler's pressure gauge at the Surveyor General's Office and at Alipore; and on one occasion, the first and fiercest of these storms that I have ever witnessed, *viz.*, on the 14th May 1856, the Calcutta race stand was blown down, and for upwards of a quarter of an hour the wind had the force of a severe gale. During the whole time, the air was so thick with dust that objects could not be distinguished even at a few yards' distance. On this occasion a large quantity of hail fell.

The characteristic phenomena of these storms show that they are eddies, or the result of convective interaction between the dry land wind and the damp sea wind; and it is probable that the violent and incessant electrical discharges, that are one of their salient

[1] See Indian Meteorological Memoirs, Volume I, p. 144, and Plate X, which gives facsimiles of the photographic traces of the Alipore barograph in two such storms.

[2] On one occasion, a thermometer, taken from a large lower-floor room, with open windows and doors, dropped 20° in less than a quarter of an hour, on being exposed to the wind preceding one of these storms.

features, are due to the very different electrical condition of the two winds. Whenever a very strong stormy wind precedes the rain, (for this is not quite an invariable accompaniment of the storm,) it always comes from about west-north-west, and it is, I believe, as was suggested by Mr. J. B. Phear, the upper current dragged down mechanically, and at the same time cooled by the falling rain, and preserving, after its descent, the strong horizontal motion which it had at the higher level.[1]

Most frequently the storm is short-lived, and half an hour or an hour brings it to an end; but sometimes it ushers in a spell of rain which may continue for many hours.

The following table illustrates the variations in the distribution of the rainfall of the three months on the plains of Lower Bengal:—

*Spring rainfall of Lower Bengal.*

| Appendix No. II, P. | Stations. | Elevation in feet. | Rainfall in Inches. | | | |
|---|---|---|---|---|---|---|
| | | | March. | April. | May. | Total. |
| 193 | Saugor Island | 6 | 1·20 | 1·50 | 4·72 | 7·42 |
| 183 | Midnapore | 120 | 1·53 | 1·74 | 5·08 | 8·35 |
| 192a | Calcutta | 18 | 1·31 | 2·37 | 5·48 | 9·16 |
| 179 | Bankoora | 150 | 1·51 | 1·61 | 3·34 | 6·46 |
| 181 | Hooghly | 31 | 1·81 | 2·98 | 5·74 | 10·53 |
| 180 | Burdwan | 99 | 1·27 | 2·59 | 4·99 | 8·85 |
| 186 | Kishnaghur | 46 | 1·03 | 2·67 | 6·62 | 10·32 |
| 188 | Jessore | 33 | 1·93 | 4·71 | 7·56 | 14·20 |
| 191 | Burrisal | 18 | 2·08 | 3·98 | 7·33 | 13·39 |
| 178 | Soory | 180 | 0·61 | 0·84 | 3·06 | 4·51 |
| 185 | Berhampore | 66 | 1·06 | 1·93 | 4·86 | 7·85 |
| 187 | Furreedpore | 20 | 2·79 | 4·40 | 8·33 | 15·52 |
| 170 | Pubna | 25 | 1·59 | 3·68 | 7·20 | 12·47 |
| 197 | Dacca | 15 | 2·45 | 5·84 | 9·26 | 17·55 |
| 169 | Rampore Bauleah | 35 | 1·20 | 1·75 | 5·59 | 8·54 |
| 168 | Bogra | 77 | 0·75 | 3·66 | 8·72 | 13·13 |
| 194 | Mymensingh | 60 | 1·95 | 5·57 | 11·74 | 19·26 |
| 167 | Maldah | 100 | 0·91 | 1·47 | 3·56 | 5·94 |
| 156 | Purneah | 125 | 0·41 | 1·38 | 3·34 | 5·13 |
| 165 | Dinagepore | 120 | 0·81 | 2·26 | 7·10 | 10·17 |
| 165 | Rungpore | 120 | 1·00 | 2·95 | 10·34 | 14·29 |

The above table, as well as the chart (Plate IX) of the spring rainfall, shows that the rainfall of this season, in Bengal, considerably exceeds that of any portion of the peninsula,

[1] Since the above was written, I have seen M. Möller's paper on the temperature and movement of air in wind squalls, published in Volume I of the Met. Zeitschrift of the German Meteorological Society. His description and figure (Fig. 2, p. 238) of a 'Boe' exactly represent the conditions of a nor'-wester.

and increases rapidly from west to east. It is especially heavy in the neighbourhood of the Tipperah and Garo hills, and also of the Himalayas. So far, the influence indicated is of the same kind as that already noticed in the Carnatic and the Northern Circars; but there is an additional feature, the explanation of which is less obvious. This is the existence of a belt of relatively greater precipitation, running east and west, across the deltaic plain, at a distance of about 80 or 100 miles from the sea, and indicated by Hooghly, Kishnaghar, Jessore, Furreedpore, and Dacca. At these stations, the spring rainfall is heavier than at those nearer the sea, on the one hand, (Calcutta, Saugor Island, Burrisal) or at those to the north on the other; except in May, to the north of Dacca, where the influence of the Garo hills causes a steady increase of the rainfall up to the hills. This band of local maximum precipitation appears to be determined by the meeting of the sea winds from the coast and the land winds from the west, and the greater frequency of nor'-wester storms along this belt. But the circumstance which raises the spring precipitation of Bengal so much above that of the maritime portion of the peninsula, that of Orissa above the Northern Circars and the Carnatic, and, as will presently be seen, that of Assam and Cachar greatly above that of Bengal, is partly the steadier indraught of the sea-wind and partly the greater local evaporation from rivers, jhils, and swamps; which latter condition reaches its maximum in Assam.

EASTERN BENGAL AND ASSAM.—The spring rainfall of this province is essentially of the same character as that of Bengal and the districts of the east coast of the peninsula at the same season; that is to say, it is the precipitation of storms which burst chiefly after the heat of the day, and generally come up from the west or north-west; the rain being preceded by a more or less violent wind squall. But, owing to the prevailing dampness of the atmosphere, which, as regards the Assam valley, is unquestionably the result of local evaporation, the falls of rain are much more frequent and, on the whole, heavier than in Bengal. Moreover, the hills which enclose the valleys, both of the Brahmaputra and the Barak, and one group of which (the Mekhir hills) stands out encroaching on the broadest portion of the former valley, by facilitating the convective ascent of the moist air, certainly assist in the production of the spring storms. In both valleys, the winds are chiefly from the east or down valley; but across the Khasi hills, there springs up, with the rising temperature, a strong current from the west. This west wind is, doubtless, in the main the continuation of the characteristic westerly wind of the Hazaribagh plateau and Behar, which has already been described as sweeping, at a high level above the sea wind, over the plains of Bengal. As the season advances, this west wind draws round more to the south-west and eventually becomes the summer monsoon. In the lower part of the Assam valley, west winds are more frequent than above Tezpur and the Mekhir hills, and, comparatively speaking, these are dry winds; but, even at Goalpara, they are less than half as frequent as those from the opposite quarter. At Sibsagar, in the upper part of the valley, easterly winds contribute four-fifths, and those from all westerly quarters less than one-sixth of the anemometric records of March and April. Yet the rainfall of these months is much heavier at Sibsagar and Dibrugarh than at Gauhati and Goalpara. There can be no question then, that, in the valley of the Brahmaputra, the source of the vapour is mainly local; and to any one who has visited the province and has seen the broad inosculating river-channels, the wide expanses of swamps, and the dense forests of the higher grounds, this will be no matter for surprise. The following table of the spring

rainfall at stations in Assam, Cachar, and the districts east of the Megna may be compared with that previously given for Bengal :—

*Spring rainfall of Eastern Bengal, Cachar, and Assam.*

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|
| | | | March. | April. | May. | Total. |
| 200 | Noakholly | 50 | 2·58 | 4·01 | 9·50 | 16·09 |
| 198 | Comillah | 60 | 2·89 | 6·54 | 10·44 | 19·87 |
| 199 | Agartalla | 100 | 4·86 | 3·99 | 11·13 | 19·98 |
| 225 | Sylhet | 140 | 5·74 | 13·73 | 21·64 | 41·11 |
| 224 | Silchar | 87 | 7·78 | 12·58 | 15·93 | 36·29 |
| 219 | Tura | 3,913 | 1·85 | 5·56 | 15·96 | 23·37 |
| 221 | Cherra Poonjee | 4,455 | 8·79 | 29·72 | 51·46 | 89·97 |
| 220 | Shillong | 4,792 | 2·01 | 3·63 | 10·33 | 15·97 |
| 222 | Samagoodting | 2,477 | 2·12 | 3·47 | 5·55 | 11·14 |
| ... | Kohima | 5,000 | 3·38 | 3·02 | 9·34 | 15·74 |
| 217 | Goalpara | 386 | 2·12 | 6·32 | 13·26 | 21·70 |
| 216 | Gauhati | 370 | 2·43 | 5·82 | 10·33 | 18·58 |
| 215 | Nowgong | 221 | 2·44 | 5·61 | 9·81 | 17·86 |
| 214 | Tezpur | 303 | 2·36 | 6·16 | 10·34 | 18·86 |
| 212 | Sibsagar | 333 | 4·44 | 10·09 | 10·81 | 25·34 |
| 213 | Nazira | 460 | 3·63 | 9·24 | 9·60 | 22·47 |
| 211 | Dibrugarh | 405 | 5·71 | 9·75 | 13·80 | 29·26 |

The above table shows that, considerable as is the spring rainfall of the Upper Assam valley, it is surpassed by that of the plain of the Surma and Barak rivers, south of the Khasi and Naga hills; and most so by that of the southern margin of the hills, as represented by Cherra Poonjee. Of this difference, the reason is obvious. While the plains of Sylhet and Silchar are as marshy and as much intersected with rivers as are those of Assam, they are open to the southerly winds, which reach them already charged with vapour from the sea; and this is condensed, in greatest abundance, on the south face of the Khasi hills and the plain skirting their foot. But Shillong, notwithstanding its elevation, being screened by the higher central plateau of the hills and open to the westerly winds before referred to, has a lower rainfall than any station in the Assam valley at this season. And equally low, or even lower, is that of Samagoodting and Kohima; which, like Shillong, are hill stations, also under the lee of the southern hill ranges and lying further eastward.

THE GANGETIC PLAIN, BEHAR, THE NORTH-WESTERN PROVINCES AND OUDH. —Evening storms, of the nor'-wester type, occur as a characteristic feature of the hot season throughout the Gangetic plain and even in the Punjab; but, as we proceed westwards, increasing our distance from the sea, the air becomes drier, easterly winds are less frequent and westerly winds more predominant, and while the precipitation accompanying

the storms diminishes, the dust storm, which, in Bengal, is a common, but by no means invariable precursor of the rain, gradually becomes the preponderant and typical, and sometimes the sole outstanding feature of the disturbance; the rain which, certainly in some, probably in all cases, is precipitated from the storm cloud, being re-evaporated before it reaches the earth's surface.

The following table shows the rainfall of the spring months at a number of stations on the Gangetic plain. They are the same as were enumerated in the table of the summer rainfall on page 49.

*Spring rainfall of the Gangetic plain; Behar, the N.-W. Provinces and Oudh.*

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|
| | | | March. | April. | May. | Total. |
| 148 | Mozufferpore | 179 | 0·47 | 0·53 | 2·25 | 3·25 |
| 147 | Patna | 179 | 0·36 | 0·31 | 1·56 | 2·23 |
| 146 | Arrah | 190 | 0·50 | 0·60 | 1·33 | 2·43 |
| 141 | Motiharee | 217 | 0·58 | 0·62 | 2·44 | 3·64 |
| 98 | Gorakhpur | 256 | 0·39 | 0·33 | 1·49 | 2·21 |
| 99 | Azamgarh | 254 | 0·35 | 0·18 | 0·97 | 1·50 |
| 101 | Ghazipur | 227 | 0·33 | 0·14 | 0·75 | 1·22 |
| 103 | Benares | 267 | 0·35 | 0·16 | 0·52 | 1·03 |
| 94 | Allahabad | 307 | 0·44 | 0·15 | 0·33 | 0·92 |
| 87 | Rai Bareli | 350 | 0·25 | 0·14 | 0·27 | 0·66 |
| 82 | Fyzabad | 329 | 0·41 | 0·26 | 1·06 | 1·73 |
| 80 | Bahraich | 398 | 0·42 | 0·36 | 1·81 | 2·59 |
| 84 | Lucknow | 369 | 0·30 | 0·14 | 0·80 | 1·24 |
| 89 | Cawnpore | 417 | 0·25 | 0·14 | 0·43 | 0·82 |
| 93 | Banda | 414 | 0·28 | 0·12 | 0·36 | 0·76 |
| 92 | Hamirpur | 362 | 0·22 | 0·09 | 0·32 | 0·63 |
| 76 | Etawah | 498 | 0·43 | 0·15 | 0·42 | 1·00 |
| 73 | Mainpuri | 515 | 0·30 | 0·13 | 0·43 | 0·86 |
| 71 | Farrukhabad | 439 | 0·47 | 0·09 | 0·60 | 1·16 |
| 78 | Sitapur | 442 | 0·49 | 0·31 | 1·19 | 1·99 |
| 70 | Shahjahanpur | 507 | 0·58 | 0·19 | 1·11 | 1·88 |
| 68 | Bareilly | 568 | 0·67 | 0·28 | 0·86 | 1·81 |
| 75 | Agra | 555 | 0·23 | 0·16 | 0·70 | 1·09 |
| 64 | Aligarh | 606 | 0·43 | 0·21 | 0·47 | 1·11 |
| 63 | Bulandshahr | 727 | 0·49 | 0·27 | 0·58 | 1·34 |
| 67 | Moradabad | 655 | 0·76 | 0·36 | 0·94 | 2·06 |
| 65 | Rudarpur | 718 | 0·94 | 0·28 | 1·18 | 2·40 |
| 61 | Bijnor | 771 | 0·92 | 0·50 | 0·75 | 2·17 |
| 59 | Roorkee | 887 | 1·07 | 0·37 | 1·18 | 2·62 |
| 58 | Saharanpur | 903 | 1·17 | 0·41 | 0·78 | 2·36 |

The stations being enumerated in sequence from east to west, the figures in the final column show that the total rainfall of the season decreases rapidly from Behar towards Oudh and the lower part of the Gangetic doab, and increases again towards the Punjab; more especially in Rohilkand and the northern districts lying under the hills. On referring to the preceding columns of the monthly rainfall, this distribution is explained. It is then evident that the position of the region of minimum rainfall, about Cawnpore and Hamirpur, is determined by the fact that, in March, the precipitation is greatest in the north-west; whereas, in May, it is greatest in the eastern districts of the plain; and, at all times, it is more frequent and copious in the neighbourhood of the hills than along the southern margin of the plain. In fact, in the north-west, we have to deal with the final stage of the cold weather rainfall, the characteristics of which have been already treated of in the previous section.

SOUTH BEHAR, CENTRAL INDIA AND MALWA PLATEAU AND NERBUDDA VALLEY.—The region, south of the Ganges and Jamna, is that in which dry westerly winds blow very steadily in the spring months; their prevalence being determined, in accordance with the cyclonic law, by the barometric depression of the Gangetic plain shown on Plate III. Accordingly, the rainfall of the season is lower than on the Gangetic plain to the north. In the northern part of the tract, the distribution of the rainfall exhibits features similar to those of the North-Western Provinces; *viz.*, a minimum in the central region, from which there is a rapid increase eastwards, and a slight increase towards the north-west. The explanation is similar.

In the south, however, the precipitation decreases steadily westwards, and, as regards the tract in question, attains its absolute minimum in Malwa. This lies within the practically rainless region of Western India, that of the north-west winds already noticed at the beginning of this section.

*Spring rainfall of South Behar, the Malwa and Bundelkhand plateau, and the Nerbudda Valley.*

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|
| | | | March. | April. | May. | Total. |
| 151 | Gya | 375 | 0·41 | 0·37 | 1·23 | 2·01 |
| 150 | Sasseram | 260 | 0·21 | 0·15 | 1·01 | 1·37 |
| 139 | Rewah | 1,043 | 0·22 | 0·29 | 0·45 | 0·96 |
| 138 | Sutna | 1,040 | 0·27 | 0·07 | 0·33 | 0·67 |
| 137 | Nagode | 1,100 | 0·22 | 0·22 | 0·44 | 0·88 |
| 136 | Nowgong | 757 | 0·19 | 0·11 | 0·33 | 0·63 |
| 95 | Jhansi | 855 | 0·41 | 0·13 | 0·24 | 0·78 |
| 96 | Lalitpur | 860 | 0·33 | 0·14 | 0·57 | 1·04 |
| 227 | Damoh | 1,385 | 0·22 | 0·20 | 0·36 | 0·78 |
| 226 | Saugor | 1,769 | 0·19 | 0·19 | 0·63 | 1·01 |
| 228 | Jubbulpore | 1,351 | 0·50 | 0·24 | 0·39 | 1·13 |

*Spring rainfall of South Behar, the Malwa and Bundelkhand plateau, and the Nerbudda Valley*—continued.

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|
| | | | March. | April. | May. | Total. |
| 229 | Narsinghpur | 1,020 | 0·25 | 0·27 | 0·52 | 1·04 |
| 230 | Hoshangabad | 1,020 | 0·25 | 0·04 | 0·54 | 0·83 |
| 131 | Bhopal | 1,670 | 0·07 | 0·01 | 0·33 | 0·41 |
| 128 | Goona | 1,617 | 0·18 | 0·06 | 0·62 | 0·86 |
| 127 | Morar | 528 | 0·28 | 0·13 | 0·54 | 0·95 |
| 108 | Bhurtpore | 725 | 0·16 | 0·16 | 0·66 | 0·98 |
| 107 | Ulwur | 1,960 | 0·21 | 0·11 | 1·30 | 1·62 |
| 109 | Jeypore | 1,592 | 0·20 | 0·24 | 0·72 | 1·16 |
| 110 | Sambhar | 1,254 | 0·22 | 0·17 | 1·21 | 1·60 |
| 111 | Ajmere | 1,611 | 0·43 | 0·11 | 0·71 | 1·25 |
| 113 | Nusseerabad | 1,461 | 0·12 | 0·04 | 0·70 | 0·86 |
| 114 | Tonk | 1,468 | 0·20 | 0·05 | 0·44 | 0·69 |
| 115 | Deoli | 1,122 | 0·16 | 0·19 | 0·15 | 0·50 |
| 116 | Shahpoora | 1,400 | 0·21 | 0·04 | 0·98 | 1·23 |
| 120 | Kotah | 920 | 0·08 | ... | 0·97 | 1·05 |
| 121 | Jhalrapatam | 1,242 | 0·22 | 0·01 | 0·71 | 0·94 |
| 130 | Agar | 1,675 | 0·04 | 0·04 | 0·53 | 0·61 |
| 129 | Neemuch | 1,639 | 0·14 | 0·10 | 0·59 | 0·83 |
| 122 | Oodeypore | 2,469 | 0·04 | ... | 0·61 | 0·65 |
| 124 | Kotra | 2,400 | 0·02 | 0·03 | 0·78 | 0·83 |
| 125 | Kherwara | 2,400 | 0·04 | 0·03 | 0·46 | 0·53 |
| 126 | Banswara | 1,500 | ... | ... | 0·35 | 0·35 |
| 132 | Rutlam | 1,563 | 0·01 | ... | 0·47 | 0·48 |
| 133 | Indore | 1,822 | 0·02 | 0·13 | 0·42 | 0·57 |
| 134 | Sirdarpore | 1,900 | 0·02 | 0·01 | 0·20 | 0·23 |
| 135 | Manpur | 1,888 | 0·03 | 0·03 | 0·51 | 0·57 |
| 231 | Khandwa | 1,024 | 0·09 | 0·08 | 0·32 | 0·49 |

THE PUNJAB PLAINS.—On the Patwar, the plateau above the Salt range, the cool season with its characteristic rainfall lasts well into April, and May is the driest month of the spring transitional season. The atmosphere of the Punjab in this season, although less characteristically calm than in December and January, is still subject to slight and variable movements; and although west or north-west winds predominate, they are less preponderant and less characteristic than in the plain further to the south-east. The average rainfall of the season increases, in a marked manner, from south-east to north-west, and

from the plains towards the hills, reaching its maximum on the outer Himalaya. The following table shows the average precipitation on the plains, including the Patwar :—

*Spring rainfall on the Punjab plains.*

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|
| | | | March. | April. | May. | Total. |
| 46 | Gurgaon | 700 | 0·57 | 0·18 | 0·75 | 1·50 |
| 45 | Delhi | 718 | 0·79 | 0·39 | 0·67 | 1·85 |
| 44 | Rohtak | 712 | 0·63 | 0·29 | 0·66 | 1·58 |
| 43 | Hissar | 689 | 0·58 | 0·28 | 0·68 | 1·54 |
| 42 | Sirsa | 662 | 0·54 | 0·43 | 0·63 | 1·60 |
| 41 | Karnal | 809 | 0·97 | 0·52 | 1·01 | 2·50 |
| 40 | Umballa | 902 | 1·11 | 0·67 | 1·02 | 2·80 |
| 39 | Ludhiana | 812 | 1·67 | 0·94 | 1·21 | 3·82 |
| 37 | Hoshiarpur | 1,058 | 1·47 | 0·71 | 0·91 | 3·09 |
| 38 | Jullundur | 1,000 | 1·24 | 0·64 | 0·84 | 2·72 |
| 36 | Ferozepore | 645 | 0·78 | 0·62 | 0·62 | 2·02 |
| 35 | Amritsar | 756 | 0·83 | 0·68 | 0·86 | 2·37 |
| 34 | Lahore | 732 | 1·08 | 0·59 | 0·87 | 2·54 |
| 33 | Gurdaspur | 1,100 | 1·49 | 0·52 | 0·77 | 2·78 |
| 32 | Gujranwala | 800 | 1·23 | 0·91 | 0·72 | 2·86 |
| 31 | Sialkot | 829 | 1·83 | 1·67 | 1·14 | 4·64 |
| 30 | Gujrat | 820 | 2·32 | 1·33 | 0·65 | 4·30 |
| 27 | Shahpur | 647 | 0·89 | 0·60 | 0·63 | 2·12 |
| 26 | Jhelum | 827 | 1·59 | 1·05 | 0·63 | 3·27 |
| 25 | Rawalpindi | 1,652 | 1·73 | 2·37 | 1·38 | 5·48 |
| 19 | Kohat | 1,754 | 1·88 | 1·57 | 1·25 | 4·70 |
| 18 | Peshawar | 1,110 | 1·64 | 1·81 | 0·57 | 4·02 |
| 20 | Bannu | 1,276 | 1·35 | 1·42 | 0·72 | 3·49 |
| 29 | Montgomery | 400 | 0·57 | 0·25 | 0·45 | 1·27 |
| 28 | Jhang | 570 | 0·83 | 0·50 | 0·49 | 1·82 |
| 21 | Dera Ismail Khan | 573 | 0·83 | 0·79 | 0·37 | 1·99 |
| 24 | Mooltan | 420 | 0·48 | 0·37 | 0·46 | 1·31 |
| 23 | Mozaffargarh | 388 | 0·39 | 0·35 | 0·32 | 1·06 |
| 22 | Dera Ghazi Khan | 395 | 0·70 | 0·37 | 0·43 | 1·50 |

It may be observed, in the above table, that, at all the more easterly stations, April has the lowest rainfall, and there is a marked increase in May. This rule holds good as far west as the Ravi; but, beyond that river, the precipitation of April, though less than that of March, exceeds that of May, so that, as above observed, May is the driest month. At stations equally distant from the Himalaya, the rainfall of May is, however, but little less on the Patwar than in the neighbourhood of the Jamna.

THE HIMALAYA.—In the hills, the rainfall of this season has the same character as on the plains, *viz.*, for the most part, that of precipitation in thunder storms; and it then frequently takes the form of hail, and soft hail, (Germ. *graupel*, Fr. *grésil*), which latter, as far as I am aware, is unknown on the plains of India.[1] At certain seasons in the hills, and especially in the Sikkim Himalaya, little storms occur almost daily, as the result of the diurnal up-valley convection of the air; but in seasons of extensive snowfall in the North-West Himalaya, and, in general, after a recent fall of snow on the higher ranges, a north or north-west wind sweeps the crest of the lower hills, and appears to neutralize the diurnal up-valley movement.[2] Occasionally, as in the year 1883, and again in 1885, snow is thus precipitated, down to levels of 9,000 or 10,000 feet, as late as the end of May; and such late falls are very prejudicial to the rainfall of the subsequent monsoon on the plains of North-Western India, and even far down the peninsula. This effect will be more fully discussed in Part II of this Memoir.

*Spring rainfall of the Central Himalaya.*

| Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|
| | | | March. | April. | May. | Total. |
| 162 | Baxa | 2,076 | 3·01 | 9·23 | 21·58 | 33·82 |
| 160 | Kurseong | 4,840 | 1·24 | 3·14 | 13·98 | 18·36 |
| 159 | Darjeeling | 6,912 | 2·35 | 3·72 | 7·10 | 13·17 |
| 161 | Mongpoo | 4,700 | 2·02 | 3·94 | 9·49 | 15·45 |
| 140 | Katmandu | 4,361 | 1·27 | 2·01 | 3·92 | 7·20 |

*Spring rainfall of the Western Himalaya.*

| Province. | Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|---|
| | | | | March. | April. | May. | Total. |
| Kumaon and Garhwal. | 50 | Srinagar | 1,743 | 2·34 | 1·02 | 2·22 | 5·58 |
| | 51 | Pauri | 5,230 | 2·35 | 1·30 | 2·69 | 6·34 |
| | 52 | Ranikhet | 6,069 | 2·06 | 1·45 | 3·09 | 6·60 |
| | 53 | Almora | 5,494 | 1·73 | 1·03 | 2·29 | 5·05 |
| | 54 | Pithoragarh | 5,373 | 2·01 | 1·48 | 3·29 | 6·78 |
| | 55 | Naini Tal | 6,400 | 2·51 | 1·65 | 2·89 | 7·05 |
| | 57 | Champawat | 5,546 | 2·61 | 1·34 | 3·69 | 7·64 |
| | 56 | Haldwani | 1,434 | 1·91 | 0·69 | 1·36 | 3·96 |
| | 49 | Dehra | 2,232 | 1·37 | 0·72 | 1·45 | 3·54 |
| | 47 | Chakrata | 7,050 | 3·27 | 1·81 | 2·92 | 8·00 |
| | 48 | Mussooree | 6,880 | 2·95 | 1·82 | 2·56 | 7·33 |

[1] It is evidently a transitional form from snow to hail, and occurs at levels intermediate between those of the two extreme forms of precipitation.

[2] The difference in the transparency of the atmosphere is then very marked. With the up-valley wind from the plains, the air is loaded with dust haze; sometimes in such thickness, that the hills, only 3 or 4 miles off, are almost in visible. The north wind, on the other hand, is very transparent, and allows the snowy range 100 miles off to stand out sharp and clear in all its details.

*Spring rainfall of the Western Himalaya*—continued.

| Province. | Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|---|
| | | | | March. | April. | May. | Total. |
| Sirmoor, Busahir, Kulu, Kangra, Chamba, Hazara, Kashmir. | 17 | Kasauli | 6,835 | 3·91 | 1·44 | 2·65 | 8·00 |
| | 16 | Simla | 6,953 | 3·11 | 2·98 | 4·72 | 10·81 |
| | 15 | Kotgarh | 5,000 | 6·42 | 4·40 | 7·48 | 18·30 |
| | 14 | Kilba | 8,500 | 2·90 | 4·03 | 2·80 | 9·73 |
| | 13 | Sultanpur | 4,034 | 4·88 | 3·88 | 2·09 | 10·85 |
| | 12 | Hamirpur | 2,490 | 2·74 | 1·18 | 1·36 | 5·28 |
| | 11 | Kangra | 2,494 | 3·47 | 0·93 | 1·33 | 5·73 |
| | 10 | Palanpur | 4,000 | 6·05 | 2·53 | 3·09 | 11·67 |
| | 7 | Dharmsala | 4,500 | 4·25 | 2·19 | 2·78 | 9·22 |
| | 8 | Nurpur | 2,060 | 4·01 | 1·16 | 1·49 | 6·66 |
| | 9 | Pathankot | 1,100 | 2·52 | 0·77 | 1·16 | 4·45 |
| | 6 | Dalhousie | 6,740 | 3·18 | 3·06 | 2·65 | 8·89 |
| | 5 | Murree | 6,344 | 2·55 | 4·39 | 3·25 | 10·19 |
| | 4 | Abbottabad | 4,166 | 4·27 | 3·20 | 3·13 | 10·60 |
| | 3 | Manasahra | 2,500 | 4·22 | 3·06 | 2·17 | 9·45 |
| | 2 | Leh | 11,500 | 0·15 | 0·09 | 0·10 | 0·34 |
| | 1 | Gilgit | 4,890 | 0·32 | 1·42 | 0·04 | 1·78 |

In the Central Himalaya, the variation of the spring rainfall follows the same rule as on the Bengal plains. It increases rapidly with the rising temperature, being doubled or trebled in each successive month. In the North-West Himalaya it is different. As far up as the valley of the Ravi, the rainfall falls off in April, but increases again in May to an amount which, in Kumaon, exceeds the rainfall of March. But while the precipitation of May, except as influenced by local conditions, is about equal, from the Kumaon frontier of Nepal to the Indus, it results from the increased precipitation of the earlier months, in a north-westerly direction, that in Kulu and Kangra, the rainfall of March is the higher; and beyond the Ravi, that of April also exceeds it. The course of variation therefore, on the outer hills, is the same as on the plains immediately below, and this has been traced in the preceding paragraph. With respect to the inner ranges, the data are too few and for too short a period to admit of any safe deductions. From the registers of such stations as Sultanpur in Kulu and Leh in Ladak, it would seem that the rainfall decreases more or less steadily as the spring advances; but, for certainty on this point, we must await the further information, that will, in time, be furnished by Kilba and the newly established observatory of Kailang.

Arakan, Pegu, and Tenasserim.—As on the west coast of the Indian peninsula, so also on that of Arakan, the rise of temperature over the land, in the early months of the year, causes a fall of pressure on the plains of Pegu, and probably, to a less extent, over the more hilly country to the north; and between the barometric depression, thus established, and the area of relatively high pressure over the Bay, north-westerly winds prevail on the coast, until a more powerful centre of aspiration is established in

Bengal and Assam. They then back to south-west. This change of the winds is well illustrated by the following wind tables of Chittagong, Akyab, and Diamond Island, which show that, at Akyab, the winds shift to south-west about a month latter than at Chittagong, and at Diamond Island a month later than at Akyab. North-west winds cease to preponderate at Chittagong in March, at Akyab in April, and at Diamond Island in May.

*Monthly percentage of winds at stations on the Arakan coast in the three spring months.*

| Stations | Months. | N. | N.-E. | E. | S.-E. | S. | S.-W. | W. | N.-W. | Calm. |
|---|---|---|---|---|---|---|---|---|---|---|
| Chittagong, 16 years | March | 11 | 8 | 8 | 12 | 14 | 22 | 14 | 8 | 3 |
| | April | 6 | 6 | 9 | 15 | 23 | 23 | 10 | 5 | 3 |
| | May | 4 | 7 | 12 | 17 | 20 | 23 | 10 | 3 | 4 |
| Akyab, 16 years | March | 8 | 10 | 13 | 5 | 7 | 9 | 24 | 21 | 3 |
| | April | 5 | 6 | 8 | 5 | 12 | 21 | 28 | 14 | 1 |
| | May | 4 | 5 | 11 | 12 | 18 | 20 | 19 | 9 | 2 |
| Diamond Island, 6 years | March | 23 | 1 | 1 | 1 | ... | 3 | 7 | 64 | ... |
| | April | 8 | 4 | 1 | 4 | 2 | 7 | 21 | 53 | ... |
| | May | 2 | 3 | 5 | 10 | 13 | 19 | 24 | 24 | ... |

At Mergui, the southernmost station, the change takes place about the same time as at Diamond Island, *viz.*, in May.

The frequency of rain is determined by these changes of the winds. Except at Chittagong, where southerly winds predominate in March, and at the southernmost station, Mergui, the first three months of the year are almost rainless. In April, as southerly winds begin to set in on the coast, an occasional afternoon storm gives a little rain; but it is not until May that rain becomes frequent and heavy, the precipitation on the coast, in that month, much exceeding that of the Malabar coast of India.

*Spring rainfall of Arakan, Pegu, and Tenasserim.*

| Provinces. | Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. March. | April. | May. | Total. |
|---|---|---|---|---|---|---|---|
| Chittagong and Arakan | 201 | Demagiri | 1,300 | 2·05 | 4·80 | 13·56 | 20·41 |
| | 202 | Rangamatia Hill | 142 | 2·58 | 3·91 | 10·37 | 16·86 |
| | 203 | Chittagong | 87 | 1·56 | 4·60 | 9·10 | 15·26 |
| | 204 | Cox's Bazar | 20 | 1·58 | 2·53 | 10·47 | 14·58 |
| | 419 | Akyab | 15 | 0·50 | 1·74 | 12·42 | 14·66 |
| | 420 | Kyaukpyu | 20 | 0·33 | 0·90 | 10·37 | 11·60 |
| | 421 | Sandoway | 50 | 0·15 | 1·30 | 14·04 | 15·49 |
| | ... | Diamond Island | 41 | 0·02 | 2·37 | 9·56 | 11·95 |
| Pegu | 422 | Thayetmyo | 134 | 0·07 | 0·75 | 5·85 | 6·67 |
| | 423 | Toungoo | 169 | 0·02 | 1·48 | 6·61 | 8·11 |

*Spring rainfall of Arakan, Pegu, and Tenasserim*—continued.

| Provinces. | Appendix Number. | Stations. | Elevation in feet. | Rainfall in inches. | | | |
|---|---|---|---|---|---|---|---|
| | | | | March. | April. | May. | Total. |
| Pegu—*contd.* | 424 | Prome | 128 | 0·01 | 0·83 | 6·17 | 7·01 |
| | 425 | Myanaung | 74 | 0·02 | 1·04 | 5·38 | 6·44 |
| | 426 | Henzada | 44 | ... | 0·70 | 6·45 | 7·15 |
| | 427 | Bassein | 35 | 0·08 | 1·48 | 8·09 | 9·65 |
| | 428 | Rangoon | 42 | 0·06 | 2·08 | 11·87 | 13·81 |
| Tenasserim | 429 | Shwegyin | 128 | 0·39 | 2·54 | 21·86 | 24·79 |
| | 430 | Moulmein | 94 | 0·13 | 3·24 | 20·22 | 23·59 |
| | 431 | Tavoy | 20 | 0·72 | 4·40 | 17·27 | 22·39 |
| | 432 | Mergui | 96 | 2·37 | 6·00 | 16·88 | 25·25 |

The early spring rainfall, especially that of April, is heaviest, as shown by the above table, in the extreme north and the extreme south of the peninsula, and there is a drier region between. This is best seen on comparing Chittagong with Cox's Bazar, and Cox's Bazar with Kaukpyu and Sandoway; and again these last with Tavoy and Mergui, all being situated on the coast. In May, the gradation is reversed; and, on the one hand, the rainfall of Moulmein exceeds that of Mergui, and, on the other, that of Sandoway exceeds Chittagong. Now, in March and April, the winds have changed to south only on the Chittagong coast, and to this they bring more rain than do the north-west winds which prevail further down. In the extreme south, at Mergui, north-west and west winds are as prevalent as between Cape Negrais and Akyab; but the further we follow them to the south the more do they put on the character of damp sea winds, and the higher is their temperature; till, in the neighbourhood of the equator, apart from the distinctive characters of land and sea winds, there is but little difference in the temperature and humidity of winds from opposite quarters. Hence the increase of the rainfall in Southern Tenasserim.

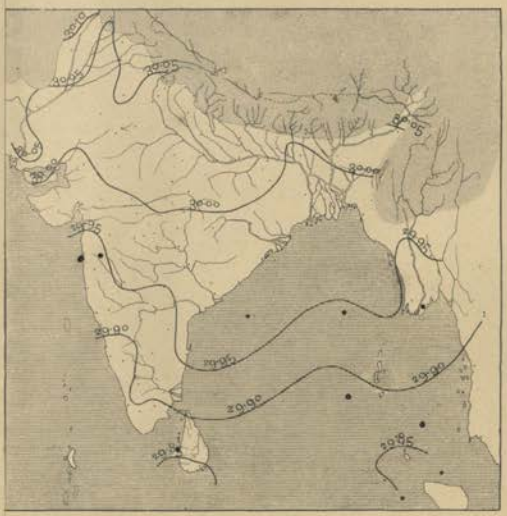
Plates II and VI illustrating this Part of the Memoir will be issued with Part II.

LITHOGRAPHED FOR THE METEOROLOGICAL REPORTER TO THE GOVT. OF INDIA,
at the Survey of India Office, Calcutta, December 1875.

NOVEMBER.

DECEMBER.

JANUARY.




FEBRUARY.

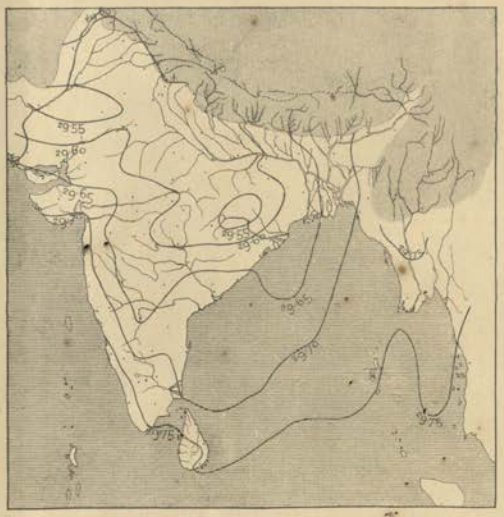
## CHARTS OF AVERAGE ATMOSPHERIC PRESSURE.

Lithographed at the Survey of India Offices, Calcutta, November 1880.

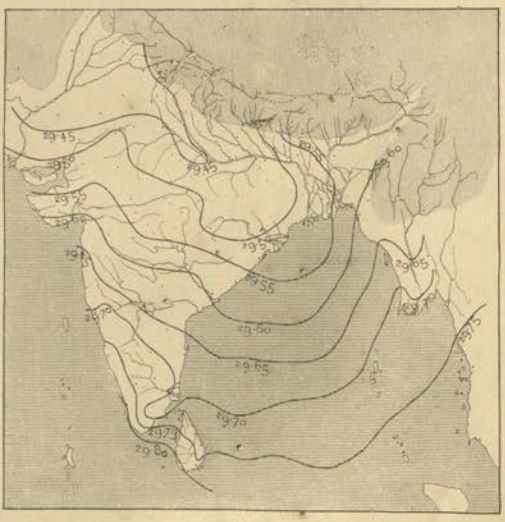
MARCH.

APRIL.

MAY.



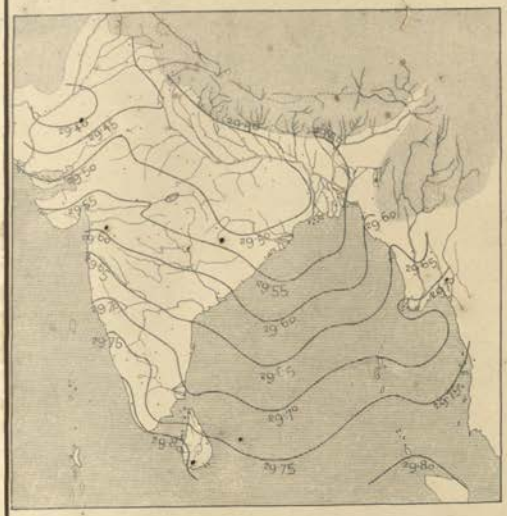

JUNE.



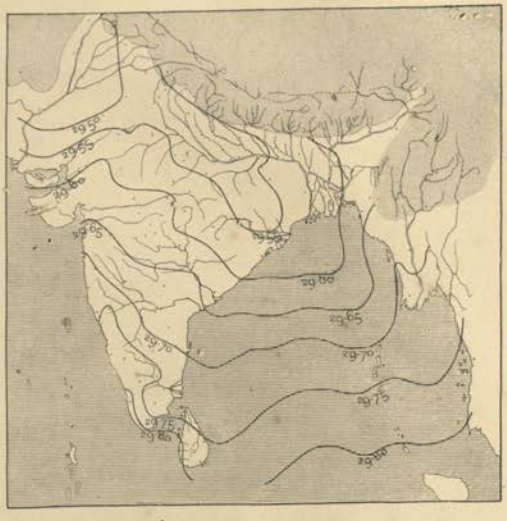

CHARTS OF AVERAGE ATMOSPHERIC PRESSURE.

Lithographed at the Survey of India Offices, Calcutta, November 1888.

JULY.



AUGUST.



SEPTEMBER.

OCTOBER.

# CHARTS OF AVERAGE ATMOSPHERIC PRESSURE.

Lithographed at the Survey of India Offices, Calcutta, November 1888.

CHART OF AVERAGE RAINFALL. JUNE TO OCTOBER.

CHART OF AVERAGE RAINFALL. NOVEMBER TO FEBRUARY.

Lithographed at the Survey of India Offices, Calcutta, December 1884.

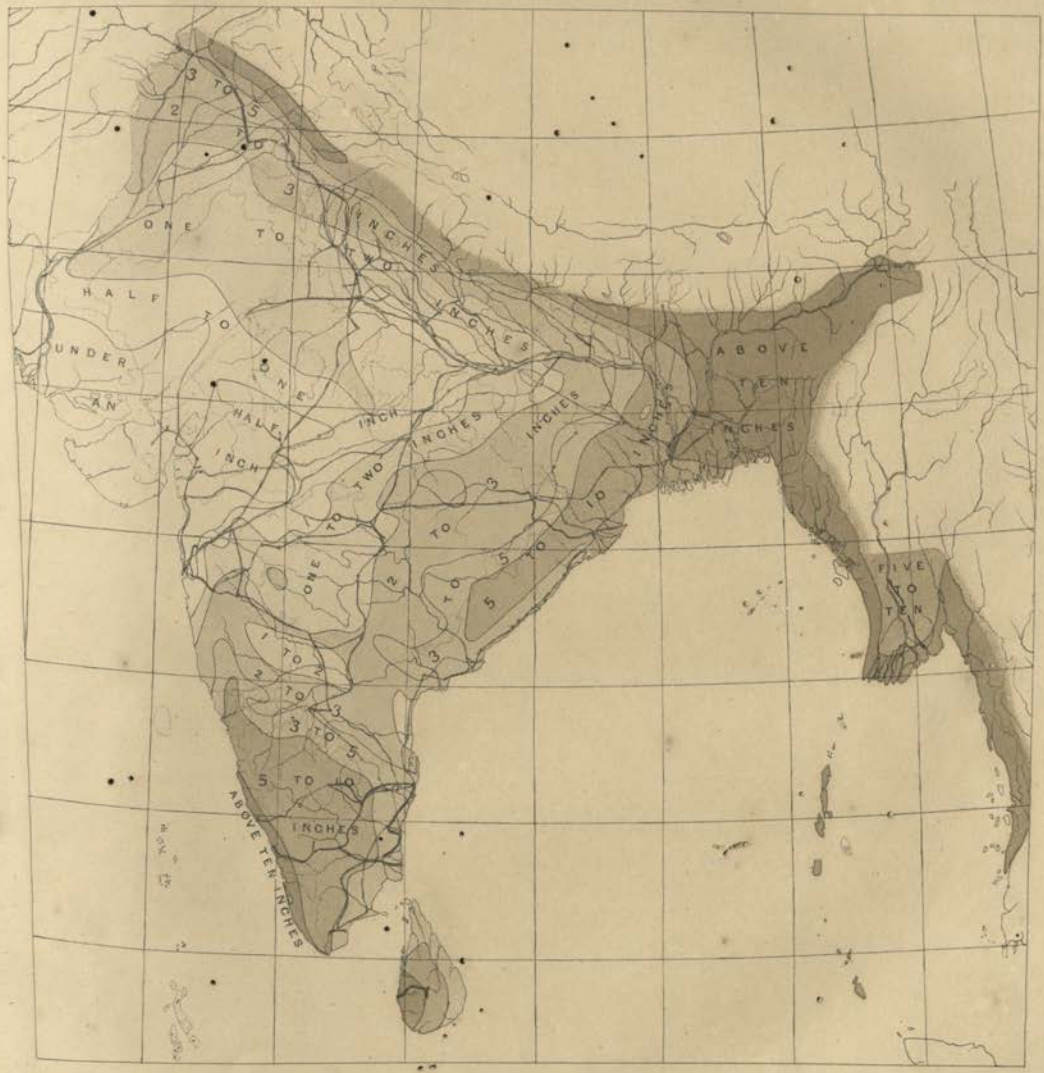



CHART OF AVERAGE RAINFALL. MARCH TO MAY.

## SUMMARY OF PART I.

It has been shown in the foregoing description that, both as regards season and the quantity of the total annual rainfall, different parts of India display the greatest possible diversity; and an endeavour has been made to describe these variations as they characterize the several provinces, and to seek for their explanation, either in the permanent geographical conditions of the latter, or in the annual variation of the solar heat, and the cycle of changes thereby set up in the temperature, pressure, and movements of the local atmosphere. It will conduce to a clearer conception of the scheme thus adumbrated, if, before quitting this part of my subject, I recapitulate, with the omission of all needless detail and in due sequence, the principal facts that have been brought out in the foregoing discussion, and thus demonstrate the unquestionable truth that, diversified and even strongly contrasted as are the details of the rainfall distribution of India, both in space and time, they are all the consistent consequences of a system of orderly physical action of striking simplicity and beauty.

At the opening of the calendar year, the rainfall is in a transitional phase, and, in the Indian area, almost suspended. In the extreme south of the Peninsula, the weather is clearing after the final showers of the autumnal rains of the Carnatic; the barometric depression, towards which blows the north-east monsoon of the Bay, having retreated southwards, till it lies south of Ceylon; and the vapour brought down by the latter is discharged as rain in the coasts of Ceylon and in more southerly latitudes. On the other hand, in the extreme north-west, in the Punjab and on the mountains around, after two or three months of bright clear skies and a falling temperature, a cloud canopy is gathering overhead; light, but damp and somewhat oppressive southerly winds are setting in over Northern and Central India; the barometer falls steadily; and after some days' incubation, a barometric depression appears or is rapidly formed in some part of North-Western India, or the more elevated country to the west of the Indus; and for two or three days snow falls more or less copiously on the hills and rain on the Punjab Plains. In some cases, this depression moves eastward towards the North-West Provinces and Bengal, carrying the rain with it, which, however, becomes lighter as it extends to the south-east. At other times, the depression seems to be almost stationary, and after a few days becomes obliterated at or near the place of its origin. As an almost invariable rule, each spell of rainy and snowy weather is followed by a wave of high barometric pressure, sweeping forward from the Indus Valley and bringing cool dry north-west winds.

In most seasons, these spells of rain occur several times in succession during the cold season, beginning usually about Christmas and becoming more frequent as the new year advances, up to March or the beginning of April. These are the cold weather rains of Upper India. It can scarcely be said that, as yet, their rationale is quite satisfactorily explained; chiefly as regards the incipient cause of the barometric fall which ushers them in. I have given in the text what appears to be at least a partial explanation; but there occur, at all times of the year, oscillations of atmospheric pressure, the primary seat of which appears to be the higher strata of the atmosphere, and the cause and nature of which are

at present very obscure. These doubtless play a part in the production of the barometric depressions. The subsequent stages of the disturbance are more easily traceable. The rain is generally restricted to the east and the north of the depression; and the vapour which feeds it is brought up by the southerly winds which, on such occasions, prevail in Northern and Central India; sometimes also in the North of the Bay and of the Arabian Sea. Much of this vapour is doubtless furnished by evaporation from the warmer land surface of the Peninsula, as well as from the sea surface; but the winds which collect it are not improbably, in their origin, the return current of the anti-monsoon, which has descended within the tropical zone, when the northern limit of that monsoon has retreated to the south of the Bay. On this point, however, I cannot speak with confidence.

The winter rainfall is restricted to Northern India. It is heaviest and most regular in the Northern Punjab, is less so on the Gangetic Plain, Eastern Rajputana, and Central India, where, indeed, it sometimes fails almost completely; and is least frequent in Bengal, where December is the most rainless month in the year. It reaches its maximum in March or April in the extreme north; in February and March between the parallels of 28° and 32° North latitude, in the Southern and Eastern Punjab and the adjacent districts of the North-West Provinces; and in the latter part of January in Oudh, the eastern half of the Gangetic Plain and Central India.

Meanwhile the temperature of the Indian Peninsula is rapidly rising under the increasing heat of the re-ascending sun. On the coast line, diurnal sea-winds begin to set in as early as January; and by the month of March, a barometric minimum is established in the interior of the Peninsula, extending up through Chutia Nagpur to the Lower Gangetic plain, (where, indeed, at all times of the year, the pressure is slightly lower than in Central India). By this time, a general indraught of air, most active in the day-time, has been set up around the coasts, the directions varying in accordance with the cyclonic law; and thus, west winds prevail on the coast of Malabar, south-east to south winds on that of the Carnatic, and south winds on that of the Northern Circars, Orissa, and Bengal. The vapour brought by these sea-winds is condensed chiefly in local diurnal storms over the south and east of the Peninsula and in Bengal; more abundantly on and around hills, which assist in promoting a convective ascent of the air, than on the plains; and most copiously of all in the permanently damp province of Assam and Cachar. This rainfall increases steadily during April and May, with the increasing heat of the land area and the fall of atmospheric pressure; which fall is greater in Northern than in Southern India.

But the Bombay Presidency, north of Dharwar, and indeed Western India generally, south of the Punjab, is rainless, or nearly so. The prevailing winds of this region, (still in accordance with the cyclonic law,) are chiefly north-west; coming from the arid Mekran coast, or descending from the plateau of Baluchistan and the higher western mountains, and then sweeping the equally waterless and partly desert plains of Sind, Western Rajputana, and Cutch, they become highly heated in their course, and, as hot winds, prevail in Western and far into Central India. In March and April too, they frequently blow, chiefly as day winds, right across Northern India to Bengal; but are rarely felt in the Gangetic delta itself, since they pursue their eastward course at the higher level attained on the Chutia Nagpur plateau, while the sea-winds from the coast creep in beneath, and, eddying with the westerly winds, give rise to the local storms term-

ed nor'westers, which are so characteristic of the spring months in Lower Bengal. As the season advances, easterly winds from the sea make their way further inland, up to the Gangetic plain, and especially along the foot of the Himalaya, giving rise to the frequent thunder-storms of the mountain zone and the dust-storms of the plains.

Thus the storm rainfall of the spring months, and especially of May, is heaviest and most frequent in Eastern Bengal and Assam, on the coasts of the Burmese peninsula, and on the Ghâts of Travancore. But it amounts to upwards of 5 inches, on an average, over all the hilly and elevated portion of Southern India, on the Eastern Ghâts (Jeypore, &c.,) in the north-east of the Peninsula, in Chutia Nagpur, and in a narrow zone along the southern face of the Himalaya. The rainfall of these months is higher in the Punjab Himalaya than in Kumaon and Nepal; but this is due to the frequent rain of March and April, which, as above explained, is similar in character to the winter rain.

During these spring months, on the Bay of Bengal and the Arabian Sea, the winds are light, frequently alternating with calms, and somewhat variable; though chiefly from south-west on the former, and northerly and in May westerly on the latter sea. The change which ensues at the end of May or in June, when the surrounding seas are swept by a strong monsoon current, and heavy and continued rain sets in on the coasts of India, is very marked, and has long been recognized in popular language as 'the burst of the monsoon.' The essential cause of the change appears to be that, during the spring months, the sea-winds which feed the storms of that season are the relatively damp but by no means saturated air of the surrounding seas; or if saturated, at least not so to any considerable vertical height above the sea surface. But in more southerly latitudes, in the neighbourhood of the equator, is a belt of the atmosphere corresponding to the doldrums of the Atlantic, into which the south-east trades of the South Indian Ocean pour a steady supply of almost saturated air. At all times of the year, more or less convection goes on in this belt, as is proved by its raininess at all seasons; and consequently it affords a great reservoir of air, which, up to an indefinite height above the sea surface, borders at all times on a state of saturation. Now it appears to be the eventual rush of this air towards the region of low pressure, developed over India gradually during the spring months, that constitutes the burst of the monsoon. Once started, the energy of its movement is sustained by the condensation of its own copious vapour; by the latent heat so set free. The energy of convection, furnished by the heated atmosphere of the plains, is competent only to keep up the feebler indraught that obtains during the spring months; and indeed, even this indraught is maintained partly by the moderate condensation of cumulus and local thunder-storms, fed by the vapour it brings. The solar heat, directly absorbed by the dry land atmosphere or taken up from the heated ground, bears much the same relation to the general air movement, as the pull on the trigger does to the propulsion of the rifle ball. It determines the disturbance of atmospheric equilibrium, but it does not furnish the energy of the resulting air-stream. That energy is supplied in the latent heat of the indrawn vapour. So long as this supply is small, and limited to the shallow stratum of air immediately fed by the evaporating surface beneath it, so long is the air movement feeble and interrupted. And it is only when the barometric gradient from south to north has become sufficiently great to tap the great reservoir of latent energy, supplied by the evaporation of the south-east trade zone, that the air current becomes strong and sustained, constituting the summer monsoon; sustained, too, long

after the heated land surface has been in a great measure quenched and cooled by the rainfall.

Even before the monsoon has set in on the coasts of India, it sometimes happens that a rush of saturated air from this persistent vapour reservoir is temporarily directed into the bosom of the Bay, or more rarely, of the Arabian Sea. Such, as Mr. Eliot has shown, is the condition that determines the formation of those severe cyclones that characterize the spring months, and more especially May in certain years. In all their essential features, except their greater violence and the intensity of their barometric depression, they are identical with the cyclonic storms, generated, from time to time, over Bengal or on its coasts, during the height of the summer monsoon; and indeed, in most years, the first burst of the rains on the coast itself is accompanied with such a storm. But whether, as Mr. Eliot has endeavoured to demonstrate, and, as seems probable, owing to the inferior depth of the saturated air current that feeds them, or to other causes yet to be ascertained, these severe cyclones of the spring months are less durable than the milder storms of the rainy season, and are speedily diverted or broken up, so soon as they are intercepted by even a low hill range.

The rain-bearing monsoon is first felt on the west coast of Ceylon about the middle of May, and shortly afterwards on that of Travancore, and in most years reaches Bombay about a fortnight later. This branch blows on the west coast of India from directions between west and south-west. Being directed against a coast, parallel to which, at an average distance of 50 or 60 miles, runs the steep escarpment of the Western Ghâts, from 2,000 to 7,000 feet in height, and being forced to surmount this range to reach the region of lower pressure in the interior, in consequence of expansion and dynamic cooling suffered in the ascent, it precipitates on the face of the Ghâts and the undulating or hilly country at their foot, a rainfall which varies, according to locality, from 100 to over 250 inches in the five months of its prevalence. On the lee side of the range, the rainfall rapidly decreases; falling in the course of about 50 miles to 30 inches, and in some places to less than 20 inches. But the plateau of the Deccan and Mysore is swept, throughout the season, by a strong westerly wind, the average movement of which, as registered by anemometers at no great elevation where the ground surface, varies from 150 to 350 miles a day. The plains of the Carnatic, being under the lee of the highlands of the interior, receive but little rain during the height of the monsoon; and indeed, in the southern half of this province, the average rainfall of both June and July is less than that of May. The hilly country to the north of the Godavery delta, as well as the narrow coast plain of the Northern Circars, has a higher rainfall; but this is in some measure received from the Bay of Bengal.

On the west coast, the rainfall reaches its maximum at Honawar in latitude 14° 30′, a little north of the common boundary of the Madras and Bombay Presidencies. At this place it exceeds 130 inches during the five months of the monsoon. It declines northward, falling to 72 inches at Bombay and to 41 at Surat. Still further north, on the coasts of Kathiawar, Cutch, and Sind, although the monsoon blows with unabated strength, having an average diurnal movement of more than 400 miles at Kurrachee, it has no longer the same rain-bearing capacity; and the form and physical circumstances of the land surface are no longer so favourable to precipitation. As on the Deccan plateau, so in Lower Sind and Cutch, the land surface is swept by a strong wind, night and day; but

rain rarely falls; and at Bhuj in Cutch, the average precipitation of the five months is barely more than 14 inches. At Kurrachee it is only 6 inches.

Another great branch of the monsoon sweeps up the Bay of Bengal as a south-west wind. This is directed, with but little obliquity, on the coasts of Tenasserim, Pegu, and Arakan, the first and last of which, like the west coast of India, are the sea-board of narrow strips of low land, fringing parallel ranges of hills. On these coasts, accordingly, the rainfall is as heavy as on that of Malabar, indeed heavier, since, at Sandoway, it is but little short of 200 inches, and at Akyab and Tavoy over 170 inches. On the coast of Pegu, however, on the margin of the Irrawadi delta, it amounts to less than 100 inches, and decreases rapidly inland, till, at the head of the delta, it has fallen to less than half that amount. At the head of the Bay, the lower stratum of the current becomes more southerly, and as it sweeps the Gangetic delta, it bends round westward and blows up the Gangetic Plain and along the southern face of the Himalaya as an easterly wind. A portion of the higher stratum, however, is not so diverted, but preserves a south-west course over the hills of Tipperah, and the Khasi, Jyntia, and Naga Hills towards Upper Assam, carrying to that province and Cachar a rainfall which varies from 40 to upwards of 100 inches. On the plains and in the valley, it amounts as a rule to between 50 and 60 inches only, but on the face of the Khasi Hills, which present a steep scarp running athwart the course of the current, the forced ascent of the air produces that enormous precipitation which has made Cherra Punji famous. According to our present registers, this is not much less than 400 inches in the five monsoon months.

The two branches of the monsoon—the one a westerly wind sweeping across the whole Peninsula, the other an easterly wind occupying the fringing plain of the Himalaya—accordingly meet in Northern India. Between them lies the debateable ground of Chutia Nagpur, South Behar, and a part of the Central Indian plateau. This is the seat of a barometric trough, a region of relatively low pressure, which is more or less persistent throughout the monsoon. Within this tract, the easterly and westerly winds alternately hold sway; the former pre-dominating to the north of the Ganges and Jumna, the latter on the higher land to the south. The cyclonic storms already mentioned, which, in some seasons, are successively formed in Bengal or on its coasts, usually travel westwards along this trough or follow a track somewhere between the Satpuras on the south and the northern margin of the Gangetic Plain. As may be seen by comparing the rainfall chart, Plate VII, with the isobaric charts of the monsoon months on Plate V, the axis of the trough of low pressure is also one of minimum rainfall; but to the south of it, a band of relatively high rainfall runs across the head of the peninsula including Chutia Nagpur, the Central Provinces, Rewah, Bhopal, and Malwa; and to the north, another band of high rainfall skirts the Himalaya range. The former of these, the southern rainfall band, marks the zone in which the convective ascent of the western branch of the monsoon is, on the whole, most active; and it will be seen, in the second part of this Memoir, that the provinces that lie within it, and more especially the Central Provinces and Chutia Nagpur, have a more regular rainfall, one subject to smaller vicissitudes, than most other provinces of India; than any, indeed, excepting Bengal and Assam, which lie in the eastern prolongation of its axis.

As above remarked, the axis of the barometric trough is also one of minimum rainfall. To the north-west both the barometric depression and the zone of low rainfall open out and widen; both elements, moreover, declining in that direction, until the seat of the

absolute minimum, both of pressure and rainfall, is reached in Upper Sind, the Lower Punjab, and the adjacent States of Bahawalpore, Khyrpore, and a portion of Western Rajputana. Here the average rainfall of the summer monsoon barely exceeds 3 inches, and in some years fails completely. It is almost needless to remark that this also is the seat of the highest temperature throughout the rainy season. This, then, is the focus of the area in Northern India, towards which the Indian branches of the monsoon are directed. It is the seat of persistent minimum pressure, but not that of maximum air convection, as is sufficiently indicated by the absence of rain. The heat of this tract by rarifying the atmosphere and keeping the barometer low, determines it as the goal towards which the two branches of the monsoon flow; but the heat does not furnish the energy of the monsoon's movement, for this is supplied by the latent heat set free in the condensation of its vapour.

Beyond and to the west of the Indus, in Baluchistan, the summer season is practically rainless. At Quetta, the prevailing wind is from north-west, changing occasionally to north, west, and, chiefly in July, to south-west, but in all months, north-west is the dominant quarter. It is this persistence of land winds that explains the aridity of the Indus valley; for the south-west direction, that prevails in the valley itself, is merely that which is given to the current by the trend of the hills that bound it.

Thus then, from three sides, we have air poured in towards the seat of barometric depression in India. On the fourth, the north side, the Himalaya bars access to any air current in at least the lower half of the atmosphere. Of this indraught, the monsoon from the sea is the strongest and steadiest current, and predominates to such an extent, that hitherto its existence alone has been recognized. And this pre-eminence it enjoys, in virtue of its being that which carries within it, in a superlative degree, the source and fount of energy in a latent form, *viz.*, the latent heat of its abundant vapour. But the north-west and west winds of the western frontier, if subordinate, are far from playing an unimportant part in the meteorology of the summer season. It is to them that is due the normal rainlessness of the Indus valley and the western desert; during breaks in the rains and in such seasons as 1877, they frequently prevail far down the Gangetic Plain and over Eastern Rajputana and Central India; and it is apparently to their partially supplanting or perhaps mingling with, and diluting, the sea-wind that blows on the Concan and in the Deccan, that is due the drought that, in certain seasons, prevails in Western India.

Usually, in September, the monsoon from the sea ceases to penetrate to North-Western India; but it continues a full month longer in Bengal; its goal, in the latter half of September and the beginning of October, being the outstanding barometric depression in Chutia Nagpur. Gradually, with the greater rise of pressure in Northern India, this depression is transferred southwards, or to south-east, over the Bay. North-east winds set in on the Orissa coast, and a good deal of rain falls in the eastern coast of the Peninsula, and sometimes penetrates far into the interior. About the middle of October, it has reached the latitude of Madras, where, up to this time, the rainfall has been but scanty. Heavy and continued rain, now, for the first time, falls in the Carnatic; and this is essentially the rainy season of all the south-eastern portion of the Peninsula. It lasts through November and well into December; but, by Christmas, the chief seat of barometric depression has been transferred to the equatorial sea, and the north-east wind, (the winter monsoon,) which continues to blow on the Madras coast, carries its vapour unprecipitated to lower latitudes; the condition with which we started at the outset of this Summary.

## PART II.—THE ANOMALOUS VARIATIONS OF THE RAINFALL.

Having now completed our review of the rainfall distribution in each season of the year, as shown by the mean results of many years' records, it remains to discuss the variations and irregularities which, in any given year, modify this normal or ideal system. Save some few attempts at an empirical treatment of the problem, attempts chiefly directed to the detection of a supposed periodicity in the variations of the rainfall, but little has hitherto been done in the way of enquiring into this subject. Not indeed that its importance has been overlooked or underrated. So far is this from being the case, that when, in 1875, the first steps were taken to re-organize the Meteorological Department, a knowledge of the causes that influence the rainfall of India was explicitly set forth as that one among the various objects in view, which ranked paramount above all others.[1] But, at the same time, it was pointed out that this knowledge is co-extensive with the whole science of meteorology, and could not be made a separate and independent object of pursuit. "The vapour which furnishes the rain is brought by the wind, and the quarter from which the wind blows and the quantity of vapour it brings, are determined by local differences of atmospheric pressure, which in their turn depend on temperature and evaporation, on the varying action of the sun and the previous conditions of the atmosphere." Until then, by dint of many years' systematic registration of meteorological conditions generally, and study of the results, some insight had been gained into the general order of the atmospheric processes characteristic of Indian meteorology, it would have been futile to attempt to deal with the special problem of the rainfall. But the goal thus definitely indicated has been kept steadily in view: in each annual report on the meteorology of India, the section treating of the rainfall is the most detailed and elaborate in the volume; the variations of the rainfall, regarded as modifications of a normal scheme of distribution, have been traced out in each month and province; and, as far as practicable, its more striking phases have been correlated with other co-existent features of the meteorology, and thus, incidentally, a connection has been shown between the occurrence of excessive or deficient rainfall and certain other conditions of the atmosphere. At present, while it would certainly be premature to assert that the laws of the conditions that determine the occurrence of drought or flood can be definitely formulated, it is quite possible to indicate some of these conditions, and the chief work immediately before us is to ascertain in what degree and to what extent they are influential and valid, and also to supply certain essential links in the chain of causation. Doubtless there are others which as yet remain undetected.

In this the second part of my Memoir, I shall then consider the anomalous or

[1] "The prevision and pre-announcement of storms is then, though locally important, not the chief object of the system, and a general interchange of weather reports may be restricted, for the present at all events, to the Indian coasts of the Bay of Bengal. On the other hand, in all that relates to the distribution of the rainfall and the causes that influence it, every part of India is profoundly interested, and the discovery of their laws is of the first importance among meteorological problems."—*Report on the Re-organisation of Meteorological Observatories and Officers in India, paras. 45 and 46. Dated 26th July 1875.*

aperiodic variations of the rainfall; first comparatively and in their geographical relations, and secondly, in their historical aspect, as exhibited more particularly in the meteorological records of the last nine years. And, finally, I shall gather up and discuss from a physical point of view such particular or general conclusions as may be brought to light or suggested in the course of this review. The treatment of the whole subject will thus fall under three heads—

*1st*—The local variability of the rainfall.
*2nd*—The vicissitudes of the rainfall in past years.
*3rd*—General conclusions and summary.

## LOCAL VARIABILITY OF THE RAINFALL.

In strict logical sequence, the variability of the Indian rainfall might not inaptly have been made the subject of a preliminary enquiry at the outset of this Memoir; inasmuch as it has an important bearing on the very validity of the data on which the foregoing description has been based. For it is obvious that we must know with what approximation, the figures, which are provisionally accepted as representing the average rainfall, are true and trustworthy representations of it, before we can attach confidence to any general conclusions that may be deduced from them as to the distribution of the rainfall. But, besides this, which is the formal and statistical aspect of the question of variability, we have to consider it also in its physical and economic bearings. These are of paramount importance; and there is an obvious advantage in postponing this part of the discussion, until, from a study of the normal or average distribution of the rainfall, we have gained some knowledge of those geographical and other physical influences on which that distribution depends. This is the more necessary, since the vicissitudes of the rainfall of India are rarely, if ever, general and uniform. There have doubtless been seasons of widely prevailing scarcity and also of widely prevalent excess; but in nearly all such cases there have been important exceptions to the rule, tracts in which the variation has been of a character opposite to that which coloured the meteorology of the year as a whole. Our records show that flood and drought are to a certain extent contemporaneous and mutually compensatory; and if we regard both, as the local results of the disturbed equilibrium of a normal meteorological system, it is obvious that a knowledge and comprehension of that system, under normal conditions, is an essential preliminary to the profitable study of its disturbed relations.

In laying down this premiss, I by no means desire to pronounce a premature and adverse judgment, or indeed any judgment whatever, on the question of the cyclical variation of rainfall. Whether there be such cycles, and if so, whether their phases are uniformly world-wide, or also partial and mutually compensatory, is a problem of the highest economic and scientific importance, and one on which I shall have something to say in the sequel. But in so far as it is capable of solution by the light of our present knowledge, it is subsidiary to the more general question of the compensatory distribution of the rainfall, and the physico-geographical conditions which affect and determine it.

COMPARATIVE VARIABILITY OF THE RAINFALL AT SELECTED STATIONS.—As a preliminary to this enquiry, it will be of interest to ascertain, from a review of the data fur-

nished by some of the oldest registers, selected as representing different parts of the country, what is the absolute and relative variability of the rainfall in the several portions of the area. This discussion will also show what approximation to the real averages can be claimed for the figures, which have been used provisionally throughout this memoir, as representing the mean rainfall.

In the following table are given the results of an analysis of the registers of twenty-nine selected stations. In the first figure column is shown the number of years which have furnished a complete register, and therefore the number of annual registers from which the variability has been computed. In the second, the mean annual rainfall, as here adopted. In the third and fourth columns, the probable error of this mean, both in inches and as a percentage of the adopted mean, computed by the formula—

$$\epsilon = 0{\cdot}6745\sqrt{\frac{\Sigma(v^2)}{n(n-1)}}$$

wherein $\epsilon$ is the probable error of the result, $\Sigma(v^2)$ the sum of the squares of the excess and deficiencies in all the years, and $n$ the number of years. By the *probable error* is meant that the real error of the adopted mean is as likely to be under as over the value of $\epsilon$, and may be either in excess or defect.

In the fifth and sixth columns, are given the greatest rainfall, actually recorded, during the period of $n$ years, both in inches and as a percentage of the adopted mean; and the seventh and eighth columns the lowest recorded rainfall, in like manner.

The ninth and tenth columns show the mean variation from the average; being half the difference of the two means, computed respectively, from all years in which the rainfall has exceeded and those in which it has fallen short of the general average; and, finally, the last two columns, the probable error of the mean of ten years' registers, computed by the same formula as columns 3 and 4, with the substitution of $\sqrt{10\ (n-1)}$ for $\sqrt{n\ (n-1)}$ as the divisor. The values of these last four columns are comparable *inter se*, and show directly the absolute and relative variability of the rainfall at the several stations enumerated.

*Table showing the variability of the Annual Rainfall at 29 Stations in various parts of India and Burma.*

| Stations. | (n) Years' registers. | Mean, Inches. | Probable error. (ε). | | Wettest Year. | | Driest Year. | | Mean variation from average. | | Probable error of 10 years' mean. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Ins. ± | % ± | Inches. | % | Inches. | % | Ins. ± | % | Ins. ± | % ± |
| Almora | 40 | 38·7 | 0·8 | 2 | 61·7 | 159 | 21·9 | 57 | 5·8 | 15 | 1·6 | 4 |
| Naini Tal | 34 | 91·2 | 2·7 | 3 | 135·4 | 148 | 32·1 | 35 | 19·4 | 21 | 5·0 | 5 |
| Khatmandu | 33 | 56·8 | 1·0 | 2 | 70·4 | 124 | 33·2 | 58 | 6·9 | 12 | 1·8 | 3 |
| Shahpur | 30 | 15·0 | 0·7 | 5 | 29·3 | 195 | 4·5 | 30 | 4·5 | 30 | 1·2 | 8 |
| Delhi | 35 | 26·9 | 0·9 | 3 | 50·4 | 187 | 8·1 | 30 | 6·5 | 24 | 1·7 | 6 |
| Beawar | 28 | 20·5 | 0·9 | 5 | 42·7 | 208 | 5·5 | 27 | 5·0 | 24 | 1·6 | 8 |
| Benares | 36 | 39·6 | 1·3 | 3 | 65·3 | 165 | 19·4 | 49 | 10·1 | 26 | 2·4 | 6 |
| Patna | 32 | 42·3 | 1·3 | 3 | 62·0 | 147 | 21·8 | 52 | 9·3 | 22 | 2·3 | 5 |

*Table showing the variability of the annual rainfall at 29 stations in various parts of India and Burma*—continued.

| Stations. | (n) Years' registers. | Mean, inches. | Probable error (ε). | | Wettest Year. | | Driest Year. | | Mean variation from average. | | Probable error of 10 years' mean. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Ins. ± | % ± | Inches. | % | Inches. | % | Ins. ± | % | Ins. ± | % ± |
| Calcutta | 55 | 65·5 | 1·0 | 2 | 93·3 | 142 | 43·6 | 67 | 8·9 | 14 | 2·4 | 4 |
| Comillah | 27 | 93·0 | 1·4 | 2 | 112·3 | 121 | 72·4 | 78 | 9·7 | 10 | 2·3 | 2 |
| Gauhati | 35 | 69·8 | 1·3 | 2 | 99·2 | 143 | 48·2 | 70 | 10·6 | 15 | 2·5 | 4 |
| Jubbulpore | 40 | 52·5 | 1·3 | 2 | 86·9 | 166 | 28·5 | 54 | 10·9 | 21 | 2·7 | 5 |
| Nagpur | 37 | 44·5 | 1·2 | 3 | 65·3 | 147 | 25·5 | 57 | 8·9 | 20 | 2·2 | 5 |
| Kurrachee | 28 | 7·5 | 0·8 | 11 | 28·0 | 373 | 0·5 | 7 | 4·5 | 60 | 1·3 | 18 |
| Poona | 40 | 28·4 | 1·0 | 4 | 56·9 | 200 | 14·2 | 50 | 7·3 | 26 | 2·0 | 7 |
| Sholapur | 31 | 29·4 | 1·3 | 4 | 68·0 | 231 | 10·6 | 36 | 7·7 | 26 | 2·2 | 8 |
| Bombay | 67 | 74·1 | 1·4 | 2 | 122·0 | 165 | 33·9 | 46 | 12·9 | 17 | 3·7 | 5 |
| Mahableshwar | 29 | 258·5 | 5·8 | 2 | 374·5 | 145 | 167·7 | 65 | 35·1 | 14 | 9·9 | 4 |
| Cochin | 28 | 115·0 | 2·4 | 2 | 165·0 | 143 | 86·6 | 75 | 14·8 | 13 | 4·1 | 4 |
| Secunderabad | 41 | 27·9 | 0·8 | 3 | 44·6 | 160 | 12·9 | 46 | 5·6 | 20 | 1·6 | 6 |
| Bellary | 30 | 17·6 | 0·8 | 4 | 35·1 | 199 | 7·2 | 41 | 4·8 | 27 | 1·3 | 7 |
| Cuddapah | 31 | 28·1 | 1·3 | 5 | 58·5 | 208 | 9·5 | 34 | 8·3 | 29 | 2·3 | 8 |
| Bangalore | 48 | 35·7 | 0·8 | 2 | 56·7 | 159 | 16·0 | 45 | 6·1 | 17 | 1·8 | 5 |
| Madras | 71 | 48·9 | 1·2 | 2 | 88·4 | 181 | 18·5 | 38 | 12·3 | 25 | 3·2 | 7 |
| Trichinopoly | 32 | 37·5 | 1·7 | 5 | 95·3 | 254 | 17·1 | 46 | 10·9 | 29 | 3·0 | 8 |
| Madura | 23 | 35·3 | 1·5 | 4 | 73·0 | 207 | 20·7 | 59 | 7·3 | 21 | 2·3 | 7 |
| Akyab | 27 | 197·6 | 3·8 | 2 | 254·1 | 129 | 142·0 | 72 | 24·9 | 13 | 6·3 | 3 |
| Moulmein | 34 | 189·4 | 4·3 | 2 | 279·0 | 147 | 124·2 | 66 | 28·3 | 15 | 7·9 | 4 |
| Tavoy | 27 | 197·0 | 3·1 | 2 | 235·9 | 120 | 148·7 | 75 | 20·4 | 10 | 5·0 | 3 |

Hence it appears that, at the majority of the stations here enumerated, the probable error of the adopted mean does not much exceed or fall short of one inch. The more striking exceptions, where the probable error considerably exceeds one inch, are at stations with an excessive normal fall, such as Mahableshwar, Moulmein and Akyab; but estimated as a percentage of the average fall, it is precisely at these stations that the probable error of the result is least; and it is greatest at that with the lowest average fall, *viz.*, Kurrachee. The relative variability is, however, better set forth in the last four figure columns of the table. Meanwhile, I must point out that, since the stations enumerated in the table have been selected from among those with the longest registers, it follows that they afford a somewhat higher standard of accuracy than the general average. But the difference is not very great. Excepting in some of the native states of Rajputana and in Hyderabad, and one or two Himalayan stations, very few of the averages here adopted have been obtained from so few as 10 years' registers; and therefore the two right-hand columns of the table, the figures of which are generally less than double those of the third

and fourth columns, may be taken as representing the higher limit of the errors of the adopted means. With the single exception of Kurrachee, (representing the precarious rainfall of Sind), they are all under 9 per cent. of those means.

I have observed above, and a similar observation has been made by previous writers on rainfall, that stations having a high rainfall are also among those at which the vicissitudes are relatively the smallest, and *vice versâ*. Thus, the figures, in the last column but two of the table, show that, the five stations at which the mean variation from the average is least, (not exceeding 13 per cent.,) include three out of the five having the heaviest normal rainfall. In the order of their increasing variability they are—

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Tavoy, with an average rainfall of 197·0 inches; variation 10 per cent. | | | | | | | |
| Comillah | „ | „ | 93·0 | „ | „ | 10 | „ |
| Katmandu | „ | „ | 56·8 | „ | „ | 12 | „ |
| Cochin | „ | „ | 115·0 | „ | „ | 13 | „ |
| Akyab | „ | „ | 197·6 | „ | „ | 13 | „ |

Next follow those with a mean variation not exceeding 15 per cent.—

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mahableshwar with an average rainfall of 258·5 inches, variation 14 per cent. | | | | | | | |
| Calcutta | „ | „ | 65·5 | „ | „ | 14 | „ |
| Gauhati | „ | „ | 69·3 | „ | „ | 15 | „ |
| Moulmein | „ | „ | 189·4 | „ | „ | 15 | „ |
| Almora | „ | „ | 38·7 | „ | „ | 15 | „ |

On the other hand, the station, with the smallest average rainfall, is also that at which the mean annual deviation is relatively greatest; and the five stations, at which the latter amounts to 27 per cent. and upwards, include the three with the lowest mean rainfall. In order of decreasing variability these are—

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Kurrachee with an average rainfall of 7·5 inches, variation 60 per cent. | | | | | | | |
| Shahpur | „ | „ | 15·0 | „ | „ | 30 | „ |
| Trichinopoly | „ | „ | 37·5 | „ | „ | 29 | „ |
| Cuddapah | „ | „ | 28·1 | „ | „ | 29 | „ |
| Bellary | „ | „ | 17·6 | „ | „ | 27 | „ |

While however, these extracts from the table establish the general fact that the absolute variability of rainfall increases at a much slower rate than the normal average, they also show that, in detail, there are many departures from this rule; and that, while some stations with a very moderate average rainfall have a high degree of constancy, others, not differing from them greatly in the former respect, are subject to very great irregularities. Katmandu and Almora in the above list may be taken as somewhat striking examples of the former; Trichinopoly, and in a minor degree Cuddapah, of the latter class.

It remains then to enquire on what circumstances the regularity of the rainfall depends, other than those which determine a high average precipitation In so doing, we recognize a distinction of a very high degree of importance from an economic point of view.

If, taking from the first of the above extracted lists, the stations which, with a moderate average rainfall, nevertheless enjoy considerable constancy, *viz.*, Katmandu, Almora, Gauhati and Calcutta, and enquire what physiographic features they have in common, we find that, while they present considerable differences in point of elevation and form of the surface, they agree in being but little exposed to parching winds, and in having a climate of such uniform humidity, that vegetation preserves its greenness throughout the year. Almora and Katmandu are both screened by the outer ranges of the Himalaya from the excessive rainfall of the southern face of the range; but, on the other hand, they are equally

screened from the hot westerly winds of the plains. Gauhati is in that part of the Assam valley which is under the lea of the Khasi hills, and has comparatively a low rainfall; but the local evaporation from the river, swamps and forests, keeps up a high degree of humidity at all times of the year; and Calcutta, although far from hills, is surrounded by a low-lying deltaic tract, with much standing water at all times of the year; and the lasting greenness of the Calcutta *maidan*, (the broad grassy plain around which the European city is built,) throughout the spring months, is a matter of common remark to visitors from the brown and parched plains of Behar and North-Western India at that season.

On turning to the second list, that of stations with the highly precarious rainfall, we find that all are situated in regions with a dry land surface, where the winds from opposite quarters are strongly contrasted in point of dryness and dampness. Kurrachee is, indeed, so situated, that it is only under very exceptional circumstances that any precipitation takes place. The sea-wind, that sweeps strongly across this coast during the whole of the monsoon, brings, as is usual with strong currents, no local rainfall; and the land wind blows direct from the most arid stretch of plains in the whole of British India. It is only when a barometric minimum is formed in Lower Sind, or travels to it from a neighbouring region, that any rain falls at Kurrachee; and this occurs but rarely.

Trichinopoly, the rainfall of which is more variable than that of any station, other than Kurrachee, in the list, is situated a little to the west of the copiously irrigated and luxuriant province of Tanjore; but to the west of Trichinopoly is one of the driest tracts in the Peninsula, that around Coimbatore; the undulating plain, to the north, is a dry and unproductive stretch of bare black cotton soil; and that to the south an equally unproductive region of dry red sand, with occasional patches of thin scrub jungle. The climate of Trichinopoly is characteristically dry, but the east and north-east wind from the sea sweeps across a humid evaporating surface, the elaborately irrigated delta of the Cavery, which extends almost up to the station. A slight change in the direction of the prevailing winds, in October and November, makes all the difference between a very damp and a very dry season.

Cuddapah and Shahpur are situated in dry regions, and are not under the occasional influence of any very humid tract in the immediate neighbourhood; but also, their average rainfall, in no case, amounts to so much as three-fourths of that of Trichinopoly. At both these places, east winds are damp, west or north-west winds very dry.

The great variability of the rainfall of these and other places, similarly situated, is due to two circumstances. In the first place, when rain does fall at such places, it is, on an average, almost, if not quite, as heavy and copious as in more favoured regions. Even at Shahpur, where the average annual total is only 15 inches, I find, in 1882, one fall of 5·70 inches in the 24 hours, another of 3·10 inches, a third of 2 inches, and six others of 1 inch and upwards, out of 22 rainy days in the year. Again in 1881, there was a fall of 4·4 inches, one of 2 inches, and four others of 1 inch and upwards, out of 19 rainy days. These are perhaps somewhat exceptional years, but such a proportion of heavy falls would be equally exceptional in Bengal or elsewere. In the second place, it is a striking feature of Indian meteorology, which has been repeatedly noticed in the annual reports of the Meteorological Office, that the anomalous features of any given season are very persistent. If, then, in the Gangetic plain or the Punjab, for instance, a summer monsoon sets in feebly, rarely raining, and frequently interrupted by dry westerly winds, as a rule, the whole or greater part of the season is similarly characterized.

On the other hand, a season that begins wet is usually wet throughout. It is possibly only another application of the same law, that excessive local falls are frequently repeated, during one and the same season, on the same spot. Several instances of this phenomenon have been noticed in the annual reports on the meteorology of India; for example, Rohilkhand and also at Purneah in 1879: (see the Report on the Meteorology of India for that year, pp. 140, 144, 146, 148 and 163).

COMPARATIVE VARIABILITY OF THE RAINFALL IN THE SEVERAL RAINFALL PROVINCES.—Even more instructive, and, in its economic bearings, more important than the variability of the rainfall at selected representative stations, is that of large areas, such as the rainfall provinces, into which I have divided the whole represented area of India, (page 9) with a view to the convenient discussion of this and similar subjects. In the following table, this variability is shown, as the percentage of the probable mean rainfall of the province, by which the rainfall of any one year deviates from that average. The fundamental data are those of the Table, at page 150 given further on. I omit the Himalayan districts.

*Average rainfall and mean and extreme annual deviation from the average in the several rainfall provinces of India.*

| Rainfall provinces. | Stations. | Years. | Mean rainfall. | Annual percentage deviation. | | | Year. | |
|---|---|---|---|---|---|---|---|---|
| | | | | Mean. | Maximum. | Minimum. | Maximum. | Minimum. |
| Punjab Plains | 29 | 20 | 21·5 | ±13 | +36 | —27 | 1875 | 1868 |
| North-West Provinces and Oudh | 30—41 | 20 | 37·1 | ±23 | +47 | —39 | 1871 | 1877 |
| Behar | 3—13 | 20 | 43·4 | ±18 | +44 | —35 | 1871 | 1868 |
| Lower Bengal | 11—29 | 20 | 66 7 | ±10 | +24 | —31 | 1871 | 1873 |
| Rajputana | 4—19 | 20 | 27·9 | ±13 | +33 | —47 | 1875 | 1877 |
| Central India States | 8—21 | 20 | 41·3 | ±15 | +52 | —38 | 1867 | 1868 |
| Western Bengal | 4—10 | 16 | 49·6 | ±7 | +17 | —15 | 1874 | 1872 |
| Assam and Eastern Bengal | 7—17 | 20 | 95·2 | ±5 | +13 | —19 | 1878 | 1873 |
| Orissa and Northern Circars | 10—16 | 20 | 47·8 | ±12 | +33 | —27 | 1878 | 1865 |
| Central Provinces, South | 7—19 | 20 | 49·9 | ±10 | +15 | —32 | 1881 | 1868 |
| Khandesh and Berar | 7—11 | 20 | 34·7 | ±20 | +62 | —39 | 1883 | 1871 |
| Guzerat | 6—10 | 20 | 35·6 | ±15 | +61 | —50 | 1878 | 1877 |
| Sind and Cutch | 7—10 | 20 | 8·8 | ±37 | +124 | —53 | 1869 | 1880 |
| North Deccan | 10—14 | 20 | 9·5 | ±15 | +35 | —46 | 1878 | 1876 |
| Hyderabad | 3—19 | 14 | 31·8 | ±17 | +35 | —45 | 1878 | 1871 |
| Mysore | 7—16 | 20 | 28·8 | ±15 | +49 | —50 | 1874 | 1876 |
| Konkan and Ghats | 9—12 | 20 | 143·8 | ±12 | +30 | —31 | 1878 | 1877 |
| Malabar and Ghats | 6—8 | 20 | 115·0 | ±12 | +38 | —60 | 1882 | 1881 |
| Carnatic | 27—40 | 20 | 34·2 | ±15 | +33 | —39 | 1872 | 1876 |
| Arakan | 2—6 | 20 | 155·0 | ±8 | +16 | —22 | 1864 | 1874 |
| Pegu | 5—7 | 14 | 73·1 | ±9 | +20 | —25 | 1871 | 1874 |
| Tenasserim | 2—4 | 20 | 172·0 | ±8 | +33 | —23 | 1865 | 1878 |

The fourth figure column of the above table is very instructive. It shows that of all the provinces here enumerated, Sind with Cutch has the most variable and precarious rainfall. Next to this, stand the North-West Provinces and Oudh, which in this respect far surpass the Punjab and Rajputana, notwithstanding the much lower normal rainfall of both these provinces. Somewhat in the rear of the North-West Provinces in the order of precariousness, or ahead of them in the order of regularity of the rainfall, come Khandesh and Berar; then Behar, closely followed by Hyderabad; but the variability of this last province may perhaps be less than as here represented, the data being very scanty for the earlier years of the period considered. Next follow Central India, Guzerat, the North Deccan plateau, Mysore and the Carnatic, which are approximately equal, and show a further slight advance in point of regularity. And then, and again slightly in advance, come Rajputana (chiefly that portion east of the Aravalis) and the Punjab plains. Orissa and the Northern Circars are again appreciably in advance of these, and may be considered as closing the list of those rainfall provinces which, at one time or another, during the last century, have been the seat of severe famine; so that we may perhaps take an average variability of 12 per cent. on either side the average as marking that limit. It is true that a portion of Western Bengal with a variability of only 7 per cent. was involved in the severe famine of 1865, but only a small portion; and the rainfall stations in this division, which are very few in number and very imperfectly represent the province, show that, in most years, any excessive rainfall at one or more stations is more or less compensated by a deficiency at others, so that there is no sufficient reason to regard the case as a valid exception to the above law of limit.

The average annual rainfall of all the above tracts is under 50 inches, and we may therefore define the regions, liable to severe famine, as those in which the average rainfall is under 50 inches, and the mean annual deviation in excess or defect of that average, 12 per cent. and upwards. This is the higher limit; but as was pointed out in the Famine Commissioner's report, there is also a lower limit, where the rainfall is so uncertain and scanty that, as in Sind and Bickaneer, the country is habitable only in virtue of artificial irrigation, with water derived from a river fed from distant sources, or from deep wells; and the population is accustomed to wholesale emigration in seasons of drought. Sind and some portion of the Punjab and Rajputana, where the average rainfall is under 20 inches, may be included in this category. The tracts most liable to famine, *viz.*, the Carnatic and the North-West Provinces and Oudh, are those with a mean rainfall between 30 and 40 inches, and a mean annual variation from the average of from 15 to 23 per cent.; a mean range of variability, therefore, of from 30 to 46 per cent.

Of those provinces which enjoy a practical immunity from famine, it is to be observed that all have an average rainfall of 50 inches or upwards, and a mean annual deviation, on either side of that average, not exceeding 12 per cent. Both absolutely and in proportion to their respective averages, it would appear that Assam, Western Bengal, and Lower Bengal are the most highly favoured tracts, in respect of the regularity of their rainfall. It is however not improbable that this superiority of Bengal and Assam over the maritime portions of the Burmese peninsula and Malabar, is apparent rather than real; an accident arising from the fact that the former are represented by more stations than the latter in proportion to their areas; since, *ceteris paribus*, the annual

irregularities are reduced, as the number of stations contributing to the average is increased. The Central Provinces south of the Satpuras, although with an average rainfall of 50 inches only, enjoys a high degree of regularity, apparently greater even than that of the west coast of India.

GEOGRAPHICAL AND OTHER CONDITIONS INFLUENCING THE RAINFALL.—The geographical conditions, which favour the regularity of the rainfall of Assam and Lower Bengal, have already been noticed in connection with that of the two stations Gauhati and Calcutta. They are both provinces yielding a large amount of local evaporation, and, it may be added, are always reached by the monsoon current from the Bay of Bengal, however feebly it may blow. The region which I have termed Western Bengal, (including the Sonthal Pergunnahs and Chutia Nagpur,) is a wild hilly tract, still much covered with forest, and the same may be said of that portion of the Central Provinces which includes the Satpura ranges and the country to the south. Moreover, it has been pointed out in the description of the summer rainfall of this region, that both these regions receive rain both from easterly and westerly winds; and, indeed, the only parching winds, here felt, are those from the north-west quadrant; and from these the greater part of the Central Provinces is shielded by the loftier table-lands of the Satpura range.

On the other hand, the tracts, characterized by the greatest vicissitudes of rainfall, are those which yield but little permanent local evaporation, and are exposed to land winds of great siccity; which winds, under normal conditions, blow during the cold weather and spring, the dry seasons of the year; but occasionally also prevail, more or less abnormally, at other seasons, to the partial exclusion of the current which brings rain, and in many cases comes from the opposite quarter. This is the case throughout North-Western India and to some extent in Rajputana. In the Deccan, the dry winds are those from north-west or almost any quarter between north and west, and since, owing to the desiccating influence of the Western Ghâts on the regular monsoon, winds from west or west-south-west also bring but little rain, it is the southerly or easterly winds to which most of the rainfall is due. And in the Carnatic, while east winds bring rain, those from any direction between south-west and north are dry land winds.

A principal part of the problem of the vicissitudes of the rainfall resolves itself, then, into an enquiry into the causes which determine the abnormal prevalence of dry, or, in other words, of land winds, to the exclusion of the monsoon or sea wind; and this problem is one on which I shall presently enter, taking as my data the meteorological conditions which have been recorded with some care and approximate completeness chiefly during the last few years. But this is not the whole problem. It sometimes happens that the character of the wind, from one and the same quarter, is very different at different seasons of the same year, or in the corresponding seasons of different years. Thus, the west wind in Rajputana in the months of April and May is the dry hot wind of the season. In the rains it is frequently comparatively a humid wind, although, even then, less so than that from the opposite quarter. And both here and in the North-West Provinces, where it also frequently interrupts the monsoon, it varies greatly in temperature and humidity at this season. These differences appear to depend on the varying condition of the land surface over which the winds blow. Thus, for instance, abnormal westerly winds were very prevalent in Rajputana and the North-West Provinces, during the ordinary rainy season of 1877, and during a part of those of 1880 and 1881; and in all these years while they

prevailed, a more or less abnormal degree of heat and dryness characterized the provinces in question. But whereas in 1877 the season was dry, indeed almost rainless, from the beginning, in the two latter years more or less abundant rain had fallen in the earlier months of the monsoon, and neither in heat nor aridity were the westerly winds of these latter seasons comparable with those of 1877.

There is one further condition on which rain precipitation depends, which has been abundantly illustrated in the course of the foregoing discussion. In the memoir on the Winds of Calcutta, which forms the first instalment of Vol. I of this serial, it was stated, as a result of the investigation, that "It is not when the monsoon current is blowing steadily that rain is most probable, but when it is deflected from its normal direction by some local irregularity of pressure, and rain is the more probable in proportion as this deflection is greater."[1] As here expressed, the law applies only to the individual case of Calcutta; but an almost identical result was obtained by Mr. F. Chambers for Kurrachee,[2] and both are in reality only particular instances of a law of general validity, of which many other illustrative examples may be culled from the foregoing discussion of the normal rainfall. Thus, the strong west wind which, during the summer monsoon, sweeps over the Deccan plateau is there not a precipitating current, but it carries some of the heaviest rain to the southern division of the Central Provinces, Orissa, Chutia Nagpur and even Bengal. And the westerly winds, which have been especially noticed above, as prevailing during a prolonged interruption of the rains in Rajputana, the North-West Provinces and Central India, in August 1880 and in September 1881, were the vehicle of the vapour which, in these same months, fed the excessive rainfall of Northern Bengal and the Sikkim Himalaya. Again, the late autumnal rainfall of the Carnatic, which is brought in part by the north-east winds setting down the west coast of the Bay, lasts only so long as the Carnatic either includes or is on the borders of the seat of minimum pressure; the goal towards which the incipient winter monsoon blows. In the latter part of December and in January, the north-east monsoon is established steadily all down this coast; the barometric minimum, which is its goal, has then been permanently transferred to the south-east or south of Ceylon, where the precipitation is now at its maximum; and fine clear weather prevails in the Carnatic and everywhere to the northward.

All these instances (and they might be indefinitely multiplied) lead by obvious induction to a general law of great importance, *viz.*, that, *however vapour-laden may be any current of air, however near to saturation, it does not bring rainfall so long as it preserves simply a horizontal movement.* Over a level surface, or one that presents no *upward* slope, it sweeps with little or no change of molecular condition; but any cause whatever which sets up an ascending movement, a hill range stretching across the path of the current, the eddy arising from the increase of friction whenever a vapour-laden wind from the sea blows athwart a line of coast, or, most important of all, the convection around the borders of a barometric depression, at once determines dynamic cooling; and the formation of cloud and rain follow the sooner the higher the initial relative humidity of the mass; and the more copiously the more rapid its ascensional movement.

By far the greater part of the normal variations in rainfall distribution, at all seasons of the year, that have been described in the previous pages, in so far as they do not depend on the intrusion of dry winds, to the more or less partial exclusion of the vapour-

[1] Vol. I, p. 20. [2] *Idem*, p. 293.

bearing current, may be traced to the presence of conditions, more or less favouralbe to the ascensional movement of the air and its consequent dynamic cooling. The excessive summer precipitation of the Western Ghâts, the Konkan, and Malabar, of Arakan and Tenasserim, of the Khasi hills of Eastern Bengal and the southern face of the Himalaya, are notorious and oft-cited examples of the effect of ascensional movements, impressed on a saturated current, by hill ranges opposed directly or obliquely to its path: and, on the other hand, the comparative dryness of the Deccan plateau, where the winds at the same season follow a descending slope; of the Carnatic, and more especially Tinnevelly, Coimbatore, and Ongole under the lee of the Eastern Ghâts; of the Irrawady valley in Upper Pegu and Ava; of the northern slopes of the Khasi hills, and the Brahmaputra valley about Nowgong and Tezpur, under the lee of the same hill range, are negative examples of the same class. Again the increased rainfall on the coast line of the Sunderbuns and Orissa, especially in the month of October, and that of the Madras coast, more especially in November and December, illustrate the influence of eddies set up by the minor obstacles of a low coast line. On the west coasts of India and Arakan, no such effect is shown, probably because the country beyond is more uneven, and therefore equally competent to set up eddies, and moreover, the whole mass of the current is subject to the general ascensional movement impressed on it by the neighbouring hill-ranges. Neither is this the case on the coast of Sind and Cutch, which is swept throughout the summer months by the strong west branch of the monsoon. But here, the intense heat of the land is adverse to all precipitation, and moreover it may be noticed that, in the cases already cited, it is only in currents of moderate strength, blowing obliquely on the shore line that the retarding action of the latter is at all conspicuous.

The influence of the hill groups of the Carnatic, and of those of Eastern Bengal and the Himalaya, in increasing the local rainfall in the spring months, is different in kind from that above noticed in the case of the Ghats, &c.; this latter is mechanical, mainly the result of an obstacle opposed to a horizontal stream of air; that which we have there to deal with is mainly physical, involving thermal convection, or a tilting of the planes of equal pressure by the heating and consequent expansion of the atmosphere over the plains; which tilting produces a set of air currents towards the hill slopes, (valley winds,) resulting, by resolution of motion, in an ascending current. But the result is the same; as ascensional movement of the mass, followed by expansion and dynamic cooling.

The case of ascending currents, and therefore increased rainfall around an area of minimum barometric pressure, is too familiar to need illustration by special examples. But I must draw attention to the fact that, around the great region of minimum pressure, which is persistent in North-Western India throughout the monsoon season, and which is unquestionably the centre of aspiration, that determines the course of the two branches of the monsoon, the zone of greatest precipitation is far removed from the seat of the minimum pressure. And not only is this the case; but, moreover, in the trough of relatively low pressure which extends from this minimum to the south-east, across Northern India to Chutia Nagpore, the central or axial portion of the trough is also an axis of minimum rainfall;[1] and the two zones of heavy rainfall, both on the north and the south, lie at

[1] On the chart of the annual rainfall, Plate II, this axis of low rainfall can be traced eastwards, although interrupted, as far as to the confines of the Gangetic delta; being prolonged beyond Buxar and Chupra in Behar, by the area of low rainfall around Gya, and another beyond, around the junction of the Barrakar and Damuda rivers.

some considerable distance. Doubtless the rainfall, in both these latter zones, is to some extent enhanced by the presence of mountain ranges; of the Satpura range of hills on the south, and of the southern slopes of the Himalaya on the north; but the gradual decrease of the rainfall, from south to north, across the plateau of Malwa and Central India on the one hand, and from the foot of the Himalaya to the Ganges on the other, can hardly be ascribed to the diminishing influence of these ranges, but rather to the same general cause as the diminution westward towards the Indus valley. This cause is, I think, to be sought for in that balance of forces, which determines the position of the average maximum of the vertical component of the air's movement. From being a very small quantity over the Western Deccan, where the monsoon sweeps as a strong horizontal current, the vertical component of the movement must increase as the horizontal component decreases, and it must again decrease, beyond a certain limit, in approaching the permanent seat of minimum; which is hardly reached, or but rarely reached at all by the current from the sea.

*Influence of local evaporation on rainfall.*—In the foregoing discussion, I have referred, more than once, to the influence of local evaporation on the rainfall of certain regions; more especially as an important condition in determining its regularity. It is less easy to adduce definite and satisfactory proof of its enhancing the local rainfall, however probable, as an *a priori* conclusion, such an enhancement would appear to be; but this is because, in damp regions, where local evaporation is most effective, other conditions favourable to precipitation are usually operative also; and it is difficult, if not impracticable, to assign to each its proportionate share in the common effect of the whole.

One of the most striking instances, known to me, of a small local rainfall, distinctly dependent on the local evaporation of a land surface, is that which I have described in the Memoir on the climate of Yarkand, in Volume I of this serial. In this case, the resulting rainfall is indeed very small, as also is the evaporating area; but the case is of interest, owing to the evident dependence of the local atmospheric humidity on the wind direction; this latter being such, that the air sweeps the evaporating surface; and also on the impossibility of assigning any other origin to the vapour precipitated.

The chart of the average rainfall of India (Plate II) exhibits at least one instance of a local increase of rain, which can hardly be ascribed to any cause other than local evaporation. This is where the Indus and its tributary streams traverse the otherwise arid plain of the Lower Punjab and Sind. The increase of rainfall, along the course of the river, where the lands are irrigated, and evaporation goes on from the irrigated land surface as well as from the river, as compared with that of the desert surface beyond, is distinctly shown on the general map, and more in detail in Plate X; which represents this portion of the Indus valley on an enlarged scale, and exhibits the detailed data from which the general chart has been drawn up.

Other instances of the apparent influence of local evaporation have been noticed at pp. 31, 107, 127 and 128 of this Memoir; but these are less definite, being complicated by other causes, the several effects of which it is impossible to disentangle from the general results. That the copious spring rainfall of the Brahmaputra valley, in Assam, is fed mainly by local evaporation, is however, I think, hardly open to question; but there can be little doubt that the precipitation is aided and increased, to no small extent by the action of the surrounding hills, in the manner set forth in the previous paragraphs.

The Himalayan valleys afford illustrations of a similar action on a smaller scale. One instance, for which I am indebted to that acute observer, Dr. (now Sir) D. Brandis, late Inspector General of Forests in India, is that of the Upper Baspa valley, the vegetation of which affords evidence of a moist climate, notwithstanding that it is shut in by a high snowy range on the south, and that the lower part of the valley, down to its junction with the Sutlej, and that portion of the Sutlej Valley itself, are highly arid.

INFLUENCE OF FORESTS ON RAINFALL.—Nearly connected with the question just discussed, is that of the influence exerted by forests on the rainfall; a question of the highest economic importance, to which renewed attention has recently been drawn by the eminent physical geographer, M. Woeikoff. In an instructive paper, originally communicated to Petermann's Metteilungen,[1] and subsequently published in translation in the Quarterly Journal of the Royal Meteorological Society, M. Woeikoff appeals emphatically to the evidence afforded by the Indian rainfall registers, in support of his contention that the action of forests is to increase the rainfall of a country. His appeal is directed chiefly to the contrast afforded by the Assam rainfall with that of the Gangetic valley plain, in about the same latitude, and the same distance from the sea; and he apparently attributes the great difference displayed by these two provinces, wholly or mainly to the fact that, while the former is extensively covered with forest, the latter, up to the Terai, is a broad sheet of field cultivation.

From what has been said in the foregoing pages, of the geographical circumstances affecting rainfall in India, and of the conditions prevailing in Assam, it will be obvious that I am far from coinciding in such a view. Without denying or even questioning the effect of forests as one element of the result, the conclusion thus formulated seems to me far too sweeping. Mr. Woeikoff considers, and I think rightly, the action of forests in enhancing the rainfall to be two-fold. Firstly, they help to store the water by protecting the soil and so keep up a constant evaporation; and, secondly, by checking and obstructing the movement of the wind, they prevent the evaporated vapour being carried away, and tend to produce that calm state of the atmosphere that is favourable to ascending currents and local precipitation. But swamps, such as occupy large tracts of the Assam valley, and the numerous broad river channels that intersect it, must contribute a not unimportant quota to the vapour constituent of the local atmosphere; and the comparative stagnation of the air in the Assam valleys, and the exclusion of those dry westerly winds, which play so important a part in the meteorology of the Gangetic plain, are certainly due, in far larger measure, to the fencing in of the Assam valley by the Patkoi, Naga, Khasi, and Garo hills, and, as regards Upper Assam, to the interception of westerly currents by the mid-valley obstruction of the Mekhir hills, than to any retardation of wind movement that can be effected by the forests. Furthermore, the action of the surrounding hills, in setting up a diurnal convection of the humid atmosphere, and its consequent dynamic cooling and precipitation, an action which also takes place in the much less humid hill tracts of the peninsula, is a very important factor in the causes which contribute to produce the heavy spring rainfall of Assam; a precipitation not very greatly inferior to that of the summer monsoon. The other, or passive, effect of hills in enhancing rainfall, *viz.*, the forced ascent of horizontal air currents, is less important in Upper Assam, (the tract more particularly referred to by M. Woeikoff),

[1] Op. cit. 1885.

although exhibited by the southern face of the Khasi hills, overlooking Sylhet, in a degree without parallel elsewhere in the world. But to the other causes, above specified, must certainly be attributed by far the larger part of that prevailing high humidity and copious rainfall, which foster the exuberant vegetation of the province, rendering it in the rich variety of its flora and its prolific insect life, comparable with the teeming productiveness of the Malay region.

The difficulty so conspicuously illustrated in the foregoing example, *viz.*, of disentangling the combined effects of a number of causes, all favourable to increased rainfall or the reverse, is one which renders it almost hopeless to seek for decisive evidence of the influence of forests, by any comparison of the rainfall of different provinces, or of areas sufficiently large to display the contrasted effects in a striking and convincing manner. The best, and perhaps, only satisfactory kind of evidence, were it obtainable, would be the comparison of the rainfall of one and the same tract, (one of at least some hundreds of square miles in extent,) for many years; first while covered with forest, and again for many years after clearing. It is, however, not until a tract of virgin forest has been brought under the destructive operation of civilizing agencies that, as a general rule, any attempt is made to record its rainfall; when, therefore, the conditions necessary to obtain one term of the comparison are rapidly disappearing. The reversal of this order of things, the conversion of bare, or at least partially wasted, tracts into protected forest, is one, however, of which India already furnishes some examples, and with progress of forest protection may yet furnish more; and if due advantage be taken of these as they present themselves, it may yet be possible to obtain rainfall data which may afford valuable, and indeed practically conclusive, evidence on the point in question; even if not fulfilling, in all respects, the rigorous conditions of the logical method of differences.

One instance of the kind, on a scale large enough for all reasonable demand, has lately been brought to my notice by Mr. Ribbentrop, and has been quoted in my Report on the Administration of the Meteorological Department in 1885-1886; and, despite some shortcomings in the due verification of the data, shortcomings which it is now impossible to make good, it will probably, in the course of some years, as nearly fulfil the conditions of a test case, as we are likely to secure in an experiment of such magnitude. In some respects, indeed, the circumstances of this case are unusually favourable. The vicissitudes of the rainfall of the Central Provinces are smaller, proportionally, than those of any other province of an equally moderate average; and of the 22 stations, the rainfall registers of which will be brought in evidence, not less than 10 are regular Meteorological observatories, working under the Meteorological Department of the Government of India.

The region, referred to in the first part of my Memoir on the Rainfall of India, as the Central Provinces, South, has been described "as a hilly and jungle-clad country, including some extensive fertile plains, especially that which surrounds Raipur." The northern portion consists of the range of broken table-lands and hills, here spoken of as the Satpuras, and these are largely clothed with forest. According to the most recent report of the Officiating Inspector General of Forests, the area of forest in the Central Provinces is estimated at 54,00 square miles, of which about nine-tenths are in or to the south of the Satpura range. The area of the Central Provinces, South, has been given, at page 12, as 61,000 square miles. Hence about five-sixths of the whole are under forest. Now, prior to the year

1875, these forests were systematically wasted, by the destructive method of cultivation, practised by the hill tribes of Gondwana, as of other wild tracts in India and Burma. It is known under various local names, such as *kumri*, or, in the Central Provinces, *dáhya* cultivation, and is thus described by Dr. Brandis: "A few acres of forest are felled one year, the wood is burnt and a crop of grain raised on the clearing; the next year this is abandoned, a fresh piece of forest is felled elsewhere, a crop is raised, and it too is abandoned in its turn; and so on, a fresh clearing being made every year."

It will be readily understood how, under such a system, in the course of some years, extensive forests may be devastated, even by a sparse hill population of nomad habits. And, accordingly, in the introduction to the Central Provinces Gazetteer, published in 1870, Mr. C. Grant speaks of the state of the forests in the following terms:—

"The tree forests of the Central Provinces have, however, been so much exhausted, mainly owing to the destructive *dáhya* system of cultivation practised by the hill tribes, that, except in one or two localities, the labours of the Forest Officers will, for many years, be limited to guarding against further damage, and thus allowing the forests to recover themselves by rest. By far the greater part of the uncultivated lands, belonging to Government, are stony wastes, incapable of producing a strong straight growth of timber."

In 1875, the suppression of *dáhya* cultivation was taken systematically in hand; and in the course of a few years, with such success, that Mr. Ribbentrop writes in 1886:—

"My attention was directed, during a recent visit to the Central Provinces, to the extensive growth of young forests, in areas formerly under *kumri* cultivation. Ten or fifteen years ago, such temporary cultivation was practised throughout the country, and thousands of square miles were thereby laid barren, year after year. Since then, this method of cultivation was stopped, and, though a great part of the area affected was subject to annual fires, a more or less dense forest growth has sprung up. I concluded that this must have had an influence on the rainfall, sufficiently appreciable to be gauged by meteorological records. The results, gathered from such records, are beyond exception, and show that, with the exception of stations situated in the cultivated valley of the Nerbudda, a steady increase of rainfall has taken place during the last ten years, and, as might be expected, especially during the last period of five years."

In dealing with the evidence of the rainfall registers, I shall, in the first place, compare the averages of the nine or, in some cases, ten or eleven years, ending with 1875, (the year in which the suppression of the *dáhya* cultivation was taken in hand,) with those of the ten years subsequent, 1876—1885; and this I shall do, separately, for the stations within the area immediately affected by the forest preservation, and those at a greater or less distance therefrom. These latter are Saugor and Damoh, the forests near which have not been frequented by *dáhya* cultivators, or which are surrounded by Native States in which no change of system has been attempted, *viz.*, Jubbulpore, Narsinghpur, Hoshangabad and Khandwa, in the fertile and highly cultivated valley of the Nerbudda, and where the tendency of late years has been towards an extension of permanent cultivation; and Raipur in the centre of the great wheat-growing district of Chattisgarh.

*Comparison of the average rainfall of nine to eleven years of* dâhya *cultivation with that of ten years of protected forests.*

A—IN AFFECTED AREAS.

| Stations. | Forests unprotected. | | Forests protected. | | Increase. Inches. |
|---|---|---|---|---|---|
| | Period. | Rainfall. Inches. | Period. | Rainfall. Inches. | |
| Badnur | 1867—75 | 39·83 | 1876—85 | 47·83 | + 8·00 |
| Chhindwara | 1865—75 | 41·43 | 1876—85 | 48·48 | + 7·05 |
| Seoni | 1865—75 | 52·07 | 1876—85 | 54·76 | + 2·69 |
| Mandla | 1867—75 | 53·58 | 1876—85 | 56·32 | + 2·74 |
| Burha | 1867—75 | 64·51 | 1876—85 | 71·65 | + 7·14 |
| Bilaspur | 1865—75 | 41·85 | 1876—85 | 54·81 | +12·96 |
| Sambalpur | 1867—75 | 54·80 | 1876—85 | 67·93 | +13·13 |
| Dhamtari | 1867—75 | 48·83 | 1876—85 | 46·90 | — 1·93 |
| Bhandara | 1867—75 | 49·90 | 1876—85 | 57·79 | + 7·89 |
| Nagpur | 1866—75 | 41·54 | 1876—85 | 51·85 | +10·31 |
| Wardha | 1866—75 | 36·10 | 1876—85 | 46·63 | +10·53 |
| Brahmapuri | 1867—75 | 53·95 | 1876—85 | 57·48 | + 3·53 |
| Chanda | 1866—75 | 47·14 | 1876—85 | 54·29 | + 7·15 |
| Sironcha | 1867—75 | 44·17 | 1876—85 | 48·38 | + 4·21 |
| | | | | Mean | + 6·81 |

B—IN UNAFFECTED AREAS.

| | | | | | |
|---|---|---|---|---|---|
| Saugor | 1866—75 | 55·97 | 1876—85 | 40·62 | —15·35 |
| Damoh | 1867—75 | 54·76 | 1876—85 | 46·82 | — 7·94 |
| Jubbulpore | 1866—75 | 60·66 | 1876—85 | 56·28 | — 4·38 |
| Narsingh pur | 1866—75 | 55·46 | 1876—85 | 50·40 | — 5·06 |
| Hoshangabad | 1866—75 | 47·08 | 1876—85 | 57·73 | +10·65 |
| Khandwa | 1867—75 | 34·74 | 1876—85 | 33·32 | — 1·42 |
| Raipur | 1866—75 | 51·59 | 1876—85 | 54·47 | + 2·92 |
| | | | | Mean | — 2·94 |

The contrast, thus shown, is sufficiently striking. But, taken as they stand, it can hardly be said that the figures do more than afford a certain presumption in favour of the view, that the difference, shown by the two series of stations, is to be attributed to the preservation of the forests. In the first place, as I shall show elsewhere, the probable error of a ten years' average of a station in the Central Provinces is about 5 per cent., and this may be either in excess or defect. In the extreme case of the errors being in opposite directions in the two decennial periods compared, the greater part of the apparent increase of list A would vanish. And, in the second place, the majority of the stations in the second list lie to the north of the Satpura range; those of the first list either on the

range itself or to the south of it; and as this range about coincides with the southern margin of the track, commonly followed by the cyclonic storms of the summer monsoon, the distribution of the rainfall might be much affected by the fact of a series of such storms following a more southerly or more northerly path; or by the western branch of the monsoon, which brings nearly the whole rainfall to the region south of the Nerbudda valley, being, in several years, relatively to its normal average, stronger and more rainy than the eastern branch, which contributes to the rainfall north of that river.

But there is another way of dealing with the facts, which will not be open to such objection. Any effect, really due to forest protection, must necessarily have been progressive. Some few years were passed in inducing the jungle tribes to take to settled cultivation; again, the reproduction of the forest growth on the tracts, formerly denuded, is a process requiring many years for its accomplishment; and, finally, the protection of the forests from destruction, by annual fires in the dry season, has been steadily extended year by year. If then it should appear, on comparing the rainfall of the affected tract in successive years, that the increase has been steadily progressive, and, on the whole, in a degree commensurate with the average difference of the two decennial periods above compared, the probability of such increase having been brought about by the protection of the forests will be enormously enhanced.

The data for this comparison are afforded by the following table, which exhibits in the second column the mean rainfall of the fourteen stations enumerated in the A list of the previous table in each year from 1867 to 1885. The third column gives what may be termed progressive averages. Each average is that of five years, obtained by the formula

$$c' = \frac{a+4b+6c+4d+e}{16}$$

wherein $a$, $b$, $c$, $d$, $e$ represent the mean rainfall in any five consecutive years, and $c'$ the progressive average for the third year of the series. As a standard of comparison, I give, in the fourth column, the average rainfall of the whole Indian area, (with the omission of unrepresented tracts), the data being deduced from the table on a subsequent page of this memoir, and completed from the annual reports. The average rainfall is taken at 42 inches. Lastly, the fifth column shows the progressive averages of the rainfall of India computed from column 4.

*Comparative table of the mean annual rainfall of the forest region in the Central Provinces and of India generally from 1867 to 1885.*

| Year. | Condition. | Central Provinces. | | India. | |
|---|---|---|---|---|---|
| | | Annual mean. | Progressive average. | Annual mean. | Progressive average. |
| | | Inches. | Inches. | Inches. | Inches. |
| 1867 | Under *dâhya*. | 55·08 | ... | 44·8 | 40·2 |
| 1868 | | 33·59 | ... | 35·4 | 40·3 |
| 1869 | | 47·97 | 45·28 | 42·4 | 41·0 |
| 1870 | | 50·42 | 47·71 | 43·5 | 42·6 |
| 1871 | | 45·52 | 48·45 | 42·9 | 43·0 |
| 1872 | | 53·31 | 47·47 | 44·3 | 41·7 |

*Comparative table of the mean annual rainfall of the forest region in the Central Provinces, and of India from 1867 to 1885*—contd.

| Year. | Condition. | Central Provinces. | | India. | |
|---|---|---|---|---|---|
| | | Annual mean. | Progressive average. | Annual mean. | Progressive average. |
| | | Inches. | Inches. | Inches. | Inches. |
| 1873 | Under *dâiya*. | 39·18 | 47·02 | 37·5 | 42·2 |
| 1874 | | 50·48 | 48·85 | 46·6 | 42·4 |
| 1875 | | 56·60 | 50·15 | 44·4 | 42·4 |
| 1876 | Protected. | 42·32 | 49·58 | 37·5 | 40·5 |
| 1877 | | 52·50 | 50·40 | 37·7 | 41·1 |
| 1878 | | 52·47 | 52·60 | 48·3 | 43·3 |
| 1879 | | 55·67 | 53·85 | 43·7 | 43·5 |
| 1880 | | 51·83 | 54·50 | 40·4 | 42·4 |
| 1881 | | 57·90 | 55·31 | 42·1 | 42·4 |
| 1882 | | 54·22 | 56·52 | 44·6 | 43·0 |
| 1883 | | 57·73 | 58·57 | 41·9 | 43·1 |
| 1884 | | 64·63 | ... | 43·7 | ... |
| 1885 | | 57·43 | ... | 43·1 | ... |

The variations exhibited in this table are represented graphically in figure 1, Plate XIX.

Now the third column of this table shows, not only that the increased rainfall of the protected forest region has been, on the whole, progressive since 1876, (the year after protection was systematically enforced), but that its progression has been commensurate with the increase of the decennial average shown in the previous table; a very important point. As compared with the general average of the period antecedent to 1875, a rainfall of 48 inches, in integral figures, had risen to 58 inches in 1883; an increase of more than 20 per cent. Whether this increase will be sustained, at its full amount, by the results of future years is, however, very questionable. The rainfall of 1884 was extraordinarily high, and whereas, as may be observed in the graphic representation of these changes, the rainfall of the Central Provinces rises and falls, *pari passu* with that of the whole of India, in a somewhat remarkable degree, (having regard to the comparative smallness of its area,) the progressive average rainfall of India, as a whole, for 1883, was nearly 3 per cent. above the general average between 1867 and 1875. But, after making all due allowances, in so far as any legitimate conclusion can be drawn from the experience of the last ten years, it would seem that, owing to some local cause, the mean rainfall of the afforested region of the Central Provinces here considered, an area of nearly fifty thousand square miles, has been increased in a very remarkable degree; and I am unable to assign any other probable cause for this than that of the protection and consequent restoration of the formerly wasted forests.

The evidence, thus afforded, in favour of the influence of forests on rainfall appears to me to be of considerable weight and importance; in virtue both of the magnitude of

the area yielding it, and the apparent distinctness of the result. With one exception, and one only, it fulfils all the conditions of a rigorous test case. The area is one and the same; the history of the changes to which it has been subject are definitely and accurately known; and, as will be shown elsewhere, the rainfall registers, if but few in proportion to the area, are sufficient to afford a datum, the probable error of which is small in comparison with the magnitude of the effect shown. The only remaining points, to which exception may conceivably be taken, are the trustworthiness of the records used, and the sufficiency of the periods compared to yield valid averages.

On the first of these points, I can add but little to what has been already written in the introduction of this Memoir. Speaking from recollection, (for I have been unable to obtain the desired verification of the fact from official records), I believe that new rain-gauges of Glaisher's pattern, from one of the principal London makers, were furnished to all the stations, the registers of which are here dealt with, about the year 1867, at all events before 1870; that is to say, at or near the beginning of the period for which the registers are complete; and there are therefore no grounds for suspecting that the increase of the registered rainfall, during the last ten years, has been influenced by a change in the instrument used. And this is the most important consideration. With respect to the registering agency, as far as I have information, it has been the same throughout. Dr. S. C. Townshend, who was Sanitary Commissioner of the Central Provinces from 1866 or 1867, and who, in 1868, established the observatories, which, in 1875, were incorporated in the imperial system, took much personal interest in all the meteorological work of the province; and there is no doubt that his action was attended with beneficial results. But this change, like that of the instruments, dates from the beginning of the period now under consideration, at all events from 7 or 8 years anterior to 1875.

On the second point, *viz.*, the sufficiency of the periods compared, to yield valid averages, I have ascertained that a ten-years' register of the Central Provinces stations, Jubbulpore and Nagpore, has a probable error of 5 per cent.; *viz.*, in the case of Jubbulpore 2·7 inches, in that of Nagpore 2·2 inches; and these may be taken as fairly illustrative examples of the whole province. These, however, are the probable errors of individual stations; and, as may be easily shown, and will be further demonstrated hereafter, the mean rainfall of a whole province is much less variable than that of a single station; for, if we take the average of either the first ten years or the last ten years of the figures in the third column of the table, on pages 139, 140, we have—

Average of 1867—1876, 47·45 inches; probable error . . . . ±1·56
„ „ 1876—1885, 54·67 „ „ „ . . . . ±1·22

which is but little more than half the probable error of either Jubbulpore or Nagpore for an equal period. This is small in comparison with the difference of the two averages, *viz.*, 7·22 inches. Assuming the extreme case, that the first average is 1·56 inches below the real mean and the second 1·22 inches above it, these differences being both due to fortuitous and not steadily progressive causes, there would still remain 4·44 inches of increase unaccounted for. This is, perhaps, not such as to warrant conviction that the average rainfall of the Central Provinces south of the Nerbudda has really increased by

that amount; still less does it warrant the positive assertion that such increase, assumed as real, is due to the preservation of the forests; but at least, in so far as any inference is admissible from such data, the evidence seems to afford much support to that view.

Direct observations of a character, similar to those of Professor Ebermeyer in Bavaria, *viz.*, comparative measurements of the rainfall, at pairs of stations near the margin of forests, the one within, the other without the forest, have been carried on in Dehra Dun and Ajmere, during the last year or two, by officers of the Forest Department. Some of the results of these were given in the Administration Report of the Meteorological Department for 1885-86, and I have since visited the Dehra Dun stations and some of those in Ajmere. In the case of the former, the conditions are satisfactory; in so far, that the forest, on the site of the observatories, is a vigorous growth of, chiefly, *sâl* coppice,[1] with a well-defined boundary; and the observatory stations are, in the one case, well within the forest, in an opening only just large enough to prevent the gauge being sheltered, or its contents unduly added to by the drip of the trees; in the other in an open *maidan* of coarse grass and scrub, with only a rare tree here and there. But the intervai, between the two stations of each pair, is hardly enough to show the full influence of the forest in the one case, or to exclude it in the other; and it can only be expected that, under such circumstances, any difference depending on that influence will be very small.

There are two such pairs within about 6 miles of Dehra Dun, on the skirts of the Sivalik forests, the one at the Ramgarh, the other at the Rajah's forest. In the case of the Ramgarh forest, at which the observatories have been longest in existence, the two observatories are 750 yards apart, the outer 400 yards from the forest boundary, the inner 350 yards from it. At each station, there are two rain-gauges, the one on the ground, the other at a height of 60 feet; being perched on the summit of a scaffold, which raises it above the top of the neighbouring trees. The rain-gauges are of Symons' pattern, 5 inches in diameter, and the measurements are all made with the same measure-glass. The observer has been regularly trained in his duties, (which include keeping 4 registers of temperature and humidity, under corresponding conditions), and his work seems to have been regularly performed. The results for the years 1884 and 1885 are given in the following table:—

| | 1884. | | | | 1885. | | | |
|---|---|---|---|---|---|---|---|---|
| | Outer Lower. | Outer Higher. | Inner Lower. | Inner Higher. | Outer Lower. | Outer Higher. | Inner Lower. | Inner Higher. |
| January | ... | ... | ... | ... | 4·20 | 4·56 | 4·48 | 4·63 |
| February | ... | ... | ... | ... | 0·85 | 0·77 | 0·70 | 0·67 |
| March | ... | ... | ... | ... | 0·48 | 0·42 | 0·39 | 0·36 |
| April | ... | ... | ... | ... | 0·44 | 0·45 | 0·55 | 0·50 |
| May | ... | ... | ... | ... | 5·35 | 5·06 | 5·99 | 5·79 |
| Carried over | ... | ... | ... | ... | 11·32 | 11·26 | 12·11 | 11·95 |

[1] As testifying to the importance of this condition, I extract the following from a letter lately received from Sir D. Brandis, for many years Inspector General of Forests in India:

"I would draw your attention to a point which I used to urge in India whenever I wrote on the subject, *viz.*, that forests, in order to exercise an effect [on the rainfall], must be dense, and must not consist of a few bushes and trees here and there. Fire protection alone has the effect of making the forest grow up dense, and I am disposed to think that the large extent of fire-protected forest in the Central Provinces may, in course of time, affect the rainfall."

| | 1884. | | | | 1885. | | | |
|---|---|---|---|---|---|---|---|---|
| | Outer Lower. | Outer Higher. | Inner Lower. | Inner Higher. | Outer Lower. | Outer Higher. | Inner Lower. | Inner Higher. |
| Brought forward . | ... | ... | ... | ... | 11·32 | 11·26 | 12·11 | 11·95 |
| June . . . . . | 3·66 | 3·61 | 4·07 | 3·88 | 10·31 | 9·79 | 10·76 | 10·61 |
| July . . . . . | 25·64 | 24·72 | 26·46 | 26·44 | 9·81 | 9·27 | 9·90 | 9·88 |
| August . . . . . | 21·18 | 19·88 | 21·74 | 21·23 | 44·64 | 43·56 | 44·91 | 44·45 |
| September . . . . . | 17·53 | 17·19 | 18·78 | 18·01 | 6·24 | 6·06 | 5·51 | 5·47 |
| October . . . . . | 0·28 | 0·26 | 0·39 | 0·37 | 0 | 0 | 0 | 0 |
| November . . . . . | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| December . . . . . | 0 | 0 | 0 | 0 | 3·45 | 3·48 | 3·49 | 3·52 |
| TOTAL . | 68·29 | 65·66 | 71·44 | 69·93 | 85·77 | 83·38 | 86·68 | 85·88 |

The observations at the Rajah's forest extend over a shorter period. The stations are less than a mile distant from the former, and the arrangements are similar; the surrounding conditions of each of the pair being strongly contrasted. The outer observatory is 1,750 feet from the forest boundary, the inner 1,000 feet within the forest, which is of the same character as the Ramgarh forest—

| | Outer Lower. | Outer Higher. | Inner Lower. | Inner Higher. |
|---|---|---|---|---|
| March 1885 . . . . | ? | 0·21 | 0·27 | 0·23 |
| April „ . . . . | 0·06 | 0·32 | 0·42 | 0·36 |
| May „ . . . . | 4·69 | 4·36 | 3·99 | 4·04 |
| June „ . . . . | 10·47 | 10·07 | 11·70 | 11·42 |
| July „ . . . . | 9·81 | 9·47 | 10·63 | 9·88 |
| August „ . . . . | 47·50 | 46·99 | 45·87 | 45·87 |
| September „ . . . . | 2·43 | 2·40 | 2·46 | 2·41 |
| October „ . . . . | 0 | 0 | 0 | 0 |
| November „ . . . . | 0 | 0 | 0 | 0 |
| December „ . . . . | 3·40 | 3·43 | 3·54 | 3·45 |
| TOTAL . | 78·36 ? | 77·25 | 78·88 | 77·66 |

In this case, while, in most months, the rainfall at the inner station is appreciably higher than at the outer station, as is shown both by the elevated and ground level gauges, this gross excess appears to have been nearly neutralized by falls in May and August, which were in excess at the outer station. The result of the evidence is therefore doubtful. But, in the case of the Ramgarh station, there does appear to be a decided balance of rainfall in favour of the inner station.

I do not give the results of the Ajmere observations, because the difference of the conditions, within and without the boundary of the forest, as far as I have seen them depends much more on the form and slope of the ground, than on the density of the forest growth; and I do not think the comparative observations have much bearing on the question at issue.

There remains one case which, although dependent on purely artificial conditions, might yet afford evidence of some weight in connection with the present subject, could we only be sure that the observations had been taken with the care and precaution, indispensable to any valid comparison.[1] In the very heart of the plain between the Ravi and the Jhelum, (two of the five rivers of the Punjab,) and about 50 miles to the south of Lahore, a vigorous forest has been established by planting, and irrigating the planted land from the Bari Doab canal. The forest area covers 31⅝ square miles, and has now been established 20 years.[2] Outside the forest and to the east and south-east, are lands which are cultivated, also with irrigation from the canal; and on the margin of this tract, 4 miles from the forest, is the small civil station, Chunian. Since 1864, a rainfall register has been kept regularly at Vahn, (within the forest, ½ mile distant from the nearest forest boundary,) and 6½ miles north of Chunian; and also at Chunian; and since 1870, a third register has been kept at Bhambeh, a station on the Bari Doab canal, in a position very similar to Chunian, but 13 miles to the north-east of the forest boundary, and 19 miles north-east from Changa Manga or Vahn.

The rainfall chart of the Punjab shows that, in this part of the province, there is a steady increase of rainfall in a north-east direction, or from Chunian to Bhambeh; steady, that is to say, apart from the influence of purely local conditions; and, therefore, were the whole surface of the tract such as it is immediately around Chunian and Bhambeh, it might be anticipated that the mean rainfall of any intermediate station should be intermediate between those of Chunian and Bhambeh, in inverse proportion to their respective distances. The mean rainfall of Bhambeh, deduced from 17 years' registers, is 17·27 inches; that of Chunian, deduced from the same period, is 14·05 inches. If then Vahn, which is 19 miles from the former and 6½ miles from the latter station, had a rainfall intermediate between the above amounts, in inverse proportion to the distances of the two stations, the average of the same 17 years would be 14·85 inches. It is actually 15·76 inches, or nearly 1 inch above, the computed proportion.

I am far from considering this result as conclusive on the point at issue. In some years, the deviation from the mean proportions is very large; and on the average of the last three years, which, in this part of the Punjab, have been characterized with a remarkably low rainfall, the Vahn rainfall has been almost exactly in the inverse ratio of the relative distances of the two outer stations. Still, the evidence, so far, favours the idea, that the forest increases the rainfall.

The general conclusion to be drawn from the facts set forth in the foregoing pages is that, while no instance cited fulfils the requirements of scientific proof, the tendency of

[1] For the following information I am indebted to Colonel Home, R.E., late Secretary to the Punjab Government in the Irrigation Department of the Public Works, and now Secretary to the Government of India: "Two gauges are placed side by side; the receivers are 4½ feet above the ground. One is an ordinary tube gauge; measurements made with a graduated rod. The other a Watson's continuous self-registering gauge, which is taken to pieces, cleaned and readjusted on 1st April yearly. The bearings of the gauge are silver plated copper tubes, and, with very ordinary care in adjustment, they register very correctly. Instructions about registering rainfall are very distinct, and I believe they are obeyed."

[2] Mr. H. C. Hill, Conservator of Forests in the Punjab, writes:—"Changa Manga is a compact block of 20,242 acres, of which 8,399 are wooded with planted sissoo (*Dalbergia Sissoo*). The remainder is under ordinary scrub. The age of the plantation dates back to 1866-67; but little was done for 3 years, and the age of the forest may be taken as 16 years. The trees (excepting those in the canal avenue, averaging 63 feet,) of our best compartments average 50, 51, and 53 feet in height, and all compartments have an average of 40 or more.

"The watering of the forest begins in April and goes on more or less till September. Very little of it ever gets a second watering in the year; but that given is a good soaker of 3 or 4 feet depth of water. The ground to the east and south, except where 2 *rakhs* are touched, is all under cultivation and irrigated. Irrigation mostly from June to April."

the evidence they afford is uniformly favourable to the idea that the presence of forest increases the rainfall.

The evidence is of three kinds. First, we have that of a large province, some five-sixths of which have always been a forest wilderness; but in which, for the first ten years of the period of registration, the forest growth was greatly devastated, partly by *dáhya* cultivation, which completely destroyed the forest for the time being, wherever it was carried on; and partly by annual forest fires, which destroyed the undergrowth and injured the larger trees. For the next ten years, these destructive operations were suppressed, and the visible result is a forest growth, of such vigour and luxuriance, as to attract the attention of the Inspector General, when on his tour of inspection, to the question of its probable effect on the rainfall. During these last ten years, the rainfall of the province has progressively increased, until it would appear to amount to 20 per cent. more than the average of the first ten years.

The second instance is that of two pairs of comparative observatories, established on the Ebermeyer plan, in near proximity to each other, on the boundary of a protected forest; one of each pair being within, the other without the forest on open ground. Notwithstanding their proximity, in most months, the outer observatories show a slight excess over the inner. At each observatory there are two gauges, one at 60 feet above the ground, the other on the ground; and both afford consistent results. In the case of one pair of observatories, the total of 18 months' registers shows an excess in the inner high-level gauge of 4 per cent., in the lower of two per cent. In the case of the other pair, the registers of 12 months only show an inappreciable net difference of the totals, although in most months the forest gauges show a slightly enhanced fall.

Lastly, we have the case of a forest, artificially produced by irrigation, (during the two driest months of the year,) in a region, so dry, that cultivation is rendered possible only by irrigation. Seventeen years' registers, at a station within the forest, show an excess of 6 per cent. over the probable rainfall of that station, as computed from the registers of two stations, one of which is 4 miles, the other 13 miles, distant from the forest, and both on the borders of the cultivation.

The evidence is then, in kind, not rigorously conclusive; and it must be admitted that in no case has it been guarded by those special precautions which are demanded by strict scientific enquiry. But I have no reason to believe that it is not as trustworthy as observations made under the general supervision of intelligent and educated men usually are; and such as it is, it tends to support and confirm the conclusions drawn *a priori* from general physical considerations. It justifies, I think, at least, the view I have already expressed elsewhere, *viz.*, that I can no longer regard the long suspected influence of forests on rainfall as a question of equally balanced probabilities.

## VICISSITUDES OF THE RAINFALL IN PAST YEARS.

Having now discussed, from a general point of view, the influence of local geographical conditions on the regularity of the rainfall in different parts of India, it remains to review the evidence afforded by its variations in past years, in order to ascertain whether, in these vicissitudes, there can be detected any general law, either of coincidence or sequence. Such law might be either formal or rational. It might be found, on the one hand, in the periodical recurrence of seasons of drought and abundant rainfall, or the simultaneous occurrence of these opposite conditions in different tracts, apart from any obvious physical explanation; or, on the other hand, it might appear in a certain chain of physical actions in the tract affected, or in the influence of conditions operating in a neighbouring or even somewhat remote region. Indeed, generalizations, falling under all these heads, have been tentatively put forward, from time to time, by various writers on the subject; and it will now be my endeavour to bring these to the test of our available evidence, in the case of the Indian rainfall.

VERIFICATION OF THE DATA.—Inasmuch as, any enquiry into the vicissitudes of the rainfall will be of little value, unless we take account of a considerable series of years our data are perforce restricted to the registers of such stations as have been long established, and are at the same time fairly trustworthy. In some provinces of India these are comparatively few, and even where this is not the case, it is desirable to economize labour, and not to deal with a mass of materials larger than is necessary to obtain a trustworthy result. The majority of the registers, enumerated in Appendix A, extend over the last 20 years; a few over much longer periods, but generally interrupted for some years prior to 1863 or 1864. But the stations are by no means equally distributed, being, in proportion to the areas, more than twice as numerous in the North-Western Provinces, for instance, as in the Punjab or Central India. Even in the most favourable cases, each station represents nearly 2,000 square miles; and, as was observed in the Introduction, there are two large tracts, covering 215,000 square miles of area,[1] in which no rain-gauge existed till within the last few years.

In estimating the rainfall of India as a whole, (with the exception, of course, of the unrepresented tracts), whether it be that of a specified year or its variation from the general average, any serious error, arising from the unequal distribution of the stations in different provinces, may be avoided, by computing the average of each province separately, multiplying this into its area, adding the several products, and dividing by the sum of the areas. This is in fact the proceeding by which the average annual rainfall of India has been determined, as stated at page 15 of the Introduction. But it remains to ascertain how far the average of a series of registers, each of which represents the rainfall of from 1,800 to more than 4,000 square miles, and in some cases much more, can be accepted as a valid datum for the purpose of the discussion. In the case of the North-Western Provinces, the Punjab, Bengal, the Central Provinces, Bombay and Madras, we can test this, by comparing the average of the stations here adopted, with that of four or five times their number, *viz.*, the tehsildari and sub-divisional stations, the mean annual rainfall of which is given in Appendix A. The registers of these latter stations extend, in some cases, nearly 20 years back; but the majority are for shorter periods; in Bombay for eight or nine years only, and this is too short a time in which to test the question of periodical variation. If, therefore, it be found, on enquiry, that the results of the smaller

[1] Western Rajputana and the tract in the North-East of the Peninsula.

and larger series are generally accordant, it will be better to content ourselves with the former, and leave any more ample verification for a future investigation. Even this smaller series far surpasses, in representative completeness, combined with extent of represented area, any data that have yet been appealed to with reference to the questions at issue.

In the following table, then, are compared the mean rainfall of each of the provinces, for which the registers of a large number of *teksildari,* or sub-divisional, stations are available, during the five years 1877—1881; and also the general normal averages of each province, as separately computed from the smaller and larger lists respectively. The former are marked A, the latter B, throughout the table. For the normal averages of the stations with short-period registers, (not included in Appendix A), I have adopted the figures given in Appendix B. These were computed for the rainfall chart of India, recently published. The average of the shorter series of years, during which the rainfall register has been kept in each case, was corrected by a factor, computed from the longer register of the nearest station. Thus, if $a$ and $A$ represent respectively the averages of the standard or long register station for $m$ and $m+n$ years respectively, and $b$ that of the minor or short register station duduced from $m$ years, then the corrected average $B$ of the latter is found by the formula—

$$B = \frac{b\,A}{a}$$

In many cases, instead of the factor of a single station, the means of those of two or more neighbouring stations were employed, each weighted according to its geographical position and relative distance.

In the table, the rainfall of each of the years 1877—1881 is given as a difference from the corresponding normal average. The last two lines give, in a similar manner, the mean average rainfall and mean yearly difference of that of each year, for the whole area represented in the table. These results have been computed in the manner described on page 15—

*Comparative table of mean rainfall anomalies, in each of the five years 1877—1881, as deduced from the registers of few (A) and many (B) stations respectively.*

| Rainfall Provinces. | Area, square miles. | | Stations. | Normal rainfall. | Mean anomalies. | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1877. | 1878. | 1879. | 1880. | 1881. |
| | | | | ins. | ins. | ins. | ins. | ins. | ins. |
| Punjab Plains | 120,000 | A | 29 | 21·4 | +3·0 | +3·9 | −4·5 | −4·8 | +0·3 |
| | | B | 112 | 20·1 | +2·2 | +2·2 | −4·9 | −3·3 | +1·1 |
| North-Western Provinces and Oudh | 83,500 | A | 45 | 35·6 | −15·2 | −1·6 | +13·1 | −9·1 | −1·0 |
| | | B | 230 | 34·6 | −15·1 | −2·9 | +11·9 | −9·7 | −0·3 |
| Behar | 30,000 | A | 13 | 43·4 | −0·6 | −5·3 | +9·5 | +3·7 | +2·4 |
| | | B | 27 | 43·4 | −8·8 | −4·5 | +9·2 | +2·7 | +3·7 |
| Lower Bengal | 54,000 | A | 29 | 66·7 | +4·6 | +4·9 | −3·7 | +7·2 | +3·1 |
| | | B | 83 | 69·0 | +3·6 | +5·1 | −5·8 | +5·3 | +1·7 |
| Assam and Eastern Bengal | 61,000 | A | 17 | 95·2 | −2·0 | +12·8 | +6·1 | +7·5 | +2·5 |
| | | B | 37 | 94·1 | −1·4 | +8·3 | +4·6 | +8·0 | +4·1 |
| Orissa and Northern Circars | 26,500 | A | 16 | 48·4 | −3·3 | +16·0 | −0·9 | +5·7 | +0·9 |
| | | B | 69 | 49·5 | −3·9 | +15·8 | −2·6 | +5·1 | 0 |
| Central Provinces, South | 61,000 | A | 18 | 50·0 | +0·6 | +2·1 | +6·3 | +1·1 | +7·8 |
| | | B | 48 | 47·1 | +2·4 | +2·6 | +3·7 | +1·7 | +9·3 |
| Guzerat | 54,000 | A | 10 | 33·1 | −17·9 | +22·0 | +0·9 | +1·4 | +7·9 |
| | | B | 70 | 30·1 | −16·4 | +24·2 | −2·6 | +0·6 | +3·3 |
| Sind and Cutch | 68,000 | A | 10 | 8·8 | −3·3 | +8·3 | −4·4 | −4·7 | +1·5 |
| | | B | 65 | 8·1 | −2·1 | +9·2 | −4·6 | −4·0 | +3·3 |
| North Deccan | 48,000 | A | 14 | 29·5 | +3·5 | +9·4 | +1·2 | −1·9 | −5·4 |
| | | B | 79 | 29·4 | +0·5 | +8·1 | +0·8 | −4·2 | −4·7 |

*Comparative table of mean rainfall anomalies, in each of the five years 1877—1881, as deduced from the registers of few (A) and many (B) stations respectively*—continued.

| Rainfall Provinces. | Area, square miles. | Stations. | Normal rainfall. | Mean anomalies. | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 1877. | 1878. | 1879. | 1880. | 1881. |
| | | | ins. | ins. | ins. | ins. | ins. | ins. |
| Konkan and Ghâts* . . . . | 16,000 { A | 12 | 143·8 | −44·5 | +43·8 | +1·7 | −19·3 | −13·5 |
| | { B | 53 | 120·6 | −32·4 | +37·7 | +1·6 | −17·3 | −14·2 |
| Malabar and Ghâts . . . . | 18,000 { A | 8 | 115·0 | +8·0 | +24·0 | +0·8 | −11·6 | −39·0 |
| | { B | 19 | 119·0 | +5·0 | +32·6 | +0·9 | −16·4 | −36·1 |
| Carnatic . . . . . | 72,000 { A | 40 | 34·2 | +8·3 | 0 | +2·3 | +7·0 | −2·1 |
| | { B | 116 | 31·7 | +9·6 | +0·1 | +3·5 | +8·4 | −2·4 |
| Sum of areas . . . . . | 712,000 { A | 261 | 43·8 | −3·5 | +7·0 | +1·9 | −0·4 | +0·2 |
| | { B | 1,007 | 42·5 | −2·6 | +7·2 | +0·9 | −0·7 | +0·3 |

From the above tabular comparison it appears that, in all cases but one, the variations of the A and B lists of stations are of the same sign; and that, whereas the mean annual variation from the normal rainfall, as deduced from the A lists, is ± 17 per cent. of that normal, this differs from that deduced from the B list by ± 4 per cent. of the same normal, or about a quarter of the whole anomaly on an average. The discrepancy is sometimes in excess, sometimes in defect, the mean of the former being + 3, of the latter − 5, per cent. Consequently, the error decreases as the area of comparison is enlarged, and for the sum of all the areas, while the mean variation from the normal is ± 6 per cent. of that normal average, the mean discrepancy of the A and B results is less than 1 per cent. The probable error would be less than this.

Under these circumstances, and bearing in mind that, even with the more extended data, we should still be dealing with only roughly approximate figures, we may content ourselves with the registers, given in Appendix A, for discussing the vicissitudes of the Indian rainfall in past years, with some confidence in the general trustworthiness of the results, if not too rigorously pressed in detail.

The rainfall variations of twenty years.—In the following tables, I give the mean excess or defect of the yearly rainfall, in each of the rainfall provinces here adopted, for the last twenty years; first in inches, and second as a percentage of the local average. In the earlier years of the series, some provinces are represented by fewer stations than in the later years; and, in such cases, the percentage is computed on the average of those stations only that have furnished the registers for the years in question. These tables supply the greater part of the data that will be used in the following enquiry. In the case of a few provinces, there are materials for carrying the computation one or two years further back; but in that of the majority only a very few stations afford continuous registers, and no appreciable advantage would be gained by including these fragmentary records.

In the second table, I have included the Himalayan provinces and the coasts of Arakan and Tenasserim, which are excluded from the first. This is because in a region such as the Himalaya, in which the average rainfall is so greatly affected by small differences of position, the mean of the few stations available, in each case, can by no means be regarded as representing, even approximately, the average fall of the whole area of the province; and still less does the mean excess or defect represent the average anomaly of the province in absolute measurement. But if the latter be computed as a percentage of the local average of each station, and the mean of these results be taken, the latter may suffice to show, roughly, in what proportion the fall was excessive or deficient.

*Mean variations of the rainfall in each rainfall province, from the general average of the province, in each of the twenty years 1864—1883.*

A.—IN INCHES.

| Provinces. | Stations.* | Means. | 1864. | 1865. | 1866. | 1867. | 1868. | 1869. | 1870. | 1871. | 1872. | 1873. | 1874. | 1875. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. |
| Punjab Plains | 29 | 21·5 | −1·8 | +4·2 | −1·5 | −1·8 | −5·9 | +1·2 | −4·8 | −4·2 | +3·1 | −0·6 | −1·2 | +7·8 | +0·6 | +3·0 | +3·9 | −4·5 | −4·8 | +0·3 | −0·1 | −4·2 |
| N.-W. Provinces and Oudh | 41 | 37·1 | −11·7 | −0·4 | −2·7 | +16·1 | −10·3 | −1·5 | +13·7 | +17·4 | +4·0 | −1·9 | +11·0 | +2·4 | −5·8 | −14·7 | −2·8 | +12·0 | −10·4 | −1·0 | −2·8 | −8·1 |
| Rajputana | 19 | 27·9 | −1·6 | −5·5 | +1·9 | −1·0 | −13·1 | −1·4 | −2·0 | +2·4 | +0·6 | +0·4 | −0·7 | +9·7 | +2·3 | −12·5 | +2·2 | +3·1 | −2·3 | +1·7 | +2·2 | −5·1 |
| Central India States | 21 | 41·3 | −10·7 | +1·5 | −2·8 | +22·2 | −15·6 | +2·9 | +2·6 | +11·4 | +1·5 | +3·2 | +7·9 | +8·2 | +4·6 | −12·9 | −3·6 | −0·1 | −7·6 | +1·4 | +7·6 | −4·5 |
| Behar | 13 | 43·4 | −9·7 | −6·3 | −4·0 | +15·8 | −14·9 | −3·1 | +11·3 | +19·0 | −4·7 | −9·8 | +6·6 | −1·5 | −1·1 | −9·7 | −5·2 | +9·2 | +3·7 | +3·1 | −5·0 | −5·3 |
| Western Bengal | 10 | 49·6 | ? | ? | ? | ? | −2·0 | −4·0 | +0·4 | +5·0 | −7·5 | −6·6 | +8·6 | −1·0 | +5·3 | +3·5 | +2·2 | −0·8 | +1·2 | +4·4 | −3·6 | −2·4 |
| Lower Bengal | 29 | 66·7 | +4·4 | +5·4 | −1·8 | +7·4 | +9·0 | +1·7 | −2·0 | +15·8 | −6·1 | −20·4 | −3·6 | −7·9 | +2·6 | +4·6 | +4·9 | −3·7 | +7·2 | +3·1 | −5·4 | −13·1 |
| Assam and Eastern Bengal | 17 | 95·2 | −8·9 | −5·0 | +3·3 | +1·3 | −7·7 | −3·3 | +0·6 | +0·4 | +6·3 | −17·8 | +5·9 | +4·1 | −1·1 | −3·2 | +12·8 | +6·1 | +7·5 | +2·5 | 0 | −5·5 |
| Orissa and Northern Circars | 16 | 47·8 | −8·9 | −11·5 | +0·6 | +2·5 | −7·3 | −7·3 | +2·4 | −8·7 | +12·3 | −3·6 | +4·4 | +2·4 | −6·9 | −3·3 | +16·0 | −0·6 | +5·7 | +0·9 | +4·5 | +0·5 |
| Central Provinces, South | 18 | 49·9 | −7·5 | −0·1 | −4·3 | +5·9 | −15·6 | −0·9 | +1·9 | −3·4 | +2·7 | −9·7 | −0·2 | +7·1 | −6·0 | +0·6 | +2·1 | −6·2 | +1·1 | +7·8 | +2·7 | +5·7 |
| Berar and Khandesh | 11 | 34·7 | −8·6 | −2·1 | −9·7 | +4·1 | −6·5 | −0·1 | +5·5 | −12·0 | +6·4 | −2·1 | 0 | +4·2 | −8·1 | −6·2 | +13·5 | +3·7 | −10·3 | +2·3 | +1·5 | +21·5 |
| Guzerat | 10 | 35·6 | −11·0 | −2·0 | −3·1 | −6·0 | +1·0 | +5·7 | −1·6 | −5·7 | −0·1 | −3·4 | 0 | +5·0 | −2·8 | −17·9 | +22·0 | +0·9 | +1·4 | +7·9 | +3·1 | −0·2 |
| Sind and Cutch | 10 | 8·8 | −3·7 | +2·6 | +2·3 | −3·9 | −3·1 | +10·9 | −2·6 | −1·9 | +0·3 | −3·2 | +2·9 | −1·7 | +0·3 | −3·3 | +8·3 | −4·4 | −4·7 | +1·5 | +1·4 | −1·9 |
| North Deccan | 14 | 29·3 | +0·3 | −2·8 | −4·5 | −2·1 | −2·4 | +0·5 | +6·0 | −6·2 | +0·1 | −4·2 | +9·0 | +0·9 | −13·5 | +3·5 | +9·4 | +1·2 | −1·9 | −5·4 | +10·2 | +2·0 |
| Konkan and Ghâts | 12 | 143·8 | −13·8 | +1·0 | +4·1 | −3·2 | −9·6 | −4·1 | −8·6 | −33·4 | +4·6 | −12·9 | +28·0 | +19·3 | −25·8 | −44·5 | +43·8 | +1·8 | −19·3 | −13·5 | +14·3 | +20·4 |
| Malabar and Ghâts | 8 | 115·0 | +1·7 | +4·9 | −22·9 | −16·3 | −2·0 | −1·7 | −16·5 | +14·9 | +4·7 | −1·6 | +24·0 | −15·5 | −20·7 | +6·5 | +24·0 | +0·8 | −11·6 | −30·0 | +44·1 | +2·9 |
| Mysore and Bellary | 16 | 28·8 | −0·7 | −1·0 | +0·7 | −4·0 | +2·0 | −2·3 | +2·2 | −2·7 | −1·1 | −3·8 | +14·2 | −5·9 | −14·4 | +1·1 | +9·6 | +0·1 | +3·6 | −5·8 | +4·6 | +6·4 |
| Hyderabad | 19 | 30·8 | ? | ? | ? | ? | ? | ? | +5·3 | −14·3 | +3·7 | −4·7 | −1·0 | +1·5 | −13·7 | −5·1 | +11·0 | +2·7 | −0·6 | −3·9 | +1·8 | +9·9 |
| Carnatic | 40 | 34·3 | −5·0 | −5·0 | −4·0 | −9·4 | −4·6 | −0·3 | +1·8 | +5·5 | +11·5 | −0·1 | +7·3 | −5·2 | −13·2 | +8·3 | 0 | +2·3 | +7·0 | −2·1 | +4·4 | +5·2 |
| Pegu | 7 | 73·0 | ? | ? | ? | ? | ? | ? | −12·2 | +15·5 | −0·3 | +7·5 | −19·0 | +4·7 | −5·3 | +7·9 | −10·7 | +2·3 | 0 | +2·0 | +5·0 | +1·3 |

* In certain cases there are some small differences between the number of stations and the average rainfall in these columns and the corresponding data at pages 9 to 14.

## B.—As percentages of the local averages.

| Provinces. | Means. | 1864. | 1865. | 1866. | 1867. | 1868. | 1869. | 1870. | 1871. | 1872. | 1873. | 1874. | 1875. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Inches. | | | | | | | | | | | | | | | | | | | | |
| North-West Himalaya | 64·9 | —13 | +6 | —8 | —3 | —8 | —13 | —13 | +13 | +14 | —22 | +10 | +13 | —3 | —7 | +2 | +17 | +6 | —5 | +1 | —26 |
| Punjab Plains | 21·5 | —8 | +20 | —7 | —8 | —27 | +6 | —22 | —20 | +14 | —3 | —6 | +36 | +2 | +14 | +18 | —21 | —23 | +1 | —1 | —20 |
| N.-W. Provinces and Oudh | 37·1 | —34 | —1 | —8 | +44 | —28 | —4 | +37 | +47 | +11 | —5 | +30 | +7 | —16 | —39 | —8 | +32 | —28 | —3 | —7 | —22 |
| Rajputana | 27·9 | —5 | —16 | +6 | —4 | —47 | —6 | —7 | +8 | +2 | +1 | —2 | +33 | +8 | —45 | +8 | +11 | —8 | +6 | +8 | —18 |
| Central India States | 41·3 | —25 | +3 | —6 | +52 | —38 | +7 | +6 | +27 | +4 | +8 | +19 | +11 | +20 | —31 | —6 | 0 | —18 | +3 | +18 | —11 |
| Behar | 43·4 | —22 | —15 | —9 | +36 | —35 | —7 | +26 | +44 | —11 | —23 | +15 | —3 | —3 | —22 | —12 | +21 | +8 | +7 | —11 | —12 |
| Western Bengal | 49·6 | ? | ? | ? | ? | —4 | —8 | +1 | +10 | —15 | —13 | +17 | —2 | +11 | +7 | +4 | —2 | +2 | +9 | —7 | —5 |
| Lower Bengal | 66·7 | +7 | +8 | —3 | +11 | +14 | +3 | —3 | +24 | —9 | —31 | —5 | —12 | +4 | +7 | +7 | —6 | +11 | +5 | —8 | —20 |
| Central Himalaya | 134·4 | ? | ? | ? | ? | ? | +5 | +27 | —13 | —3 | —23 | +7 | —17 | —17 | —18 | +10 | +14 | +9 | —1 | +9 | 0 |
| Assam and Eastern Bengal | 95·2 | —9 | —5 | +3 | +1 | —8 | —3 | +1 | 0 | +6 | —19 | +6 | +4 | —1 | —3 | +13 | +6 | +8 | +3 | 0 | —6 |
| Orissa and Northern Circars | 47·8 | —21 | —27 | +1 | +5 | —16 | —16 | +5 | —18 | +26 | —8 | +9 | +5 | —14 | —7 | +33 | —1 | +12 | +2 | +10 | +1 |
| Central Provinces, South | 49·9 | —15 | 0 | —9 | +12 | —32 | —2 | +4 | —7 | +5 | —20 | 0 | +14 | —12 | +1 | +4 | +12 | +2 | +15 | +5 | +11 |
| Berar and Khandesh | 34·7 | —29 | —7 | —28 | +12 | —18 | 0 | +16 | —39 | +28 | —7 | 0 | +14 | —23 | —18 | +39 | +11 | —30 | +7 | +4 | +62 |
| Guzerat | 35·6 | —40 | —7 | —11 | —20 | +3 | +18 | —5 | —16 | 0 | —10 | 0 | +14 | —8 | —50 | +61 | +3 | +4 | +22 | +9 | —1 |
| Sind and Cutch | 8·8 | —46 | +29 | +26 | —44 | —35 | +124 | —30 | —22 | +4 | —38 | +33 | —19 | +3 | —37 | +94 | —50 | —53 | +17 | +16 | —21 |
| North Deccan | 29·3 | +1 | —9 | —15 | —7 | —8 | +2 | +19 | —20 | 0 | —13 | +31 | +3 | —46 | +12 | +32 | +4 | —6 | —18 | +35 | +7 |
| Konkan and Ghâts | 143·8 | —11 | +1 | +3 | —3 | —8 | —3 | —7 | —27 | +4 | —10 | +20 | +13 | —18 | —31 | +30 | +1 | —13 | —9 | +10 | +14 |
| Malabar and Ghâts | 115·0 | +1 | +4 | —20 | —14 | —12 | —1 | —14 | +13 | +4 | —1 | +21 | —12 | —18 | +6 | +20 | +2 | —9 | —26 | +38 | +2 |
| Hyderabad | 30·8 | ? | ? | ? | ? | ? | ? | +17 | —45 | +11 | —14 | —3 | +5 | —43 | —16 | +35 | +9 | —2 | —12 | +6 | +31 |
| Mysore and Bellary | 28·8 | —3 | —4 | —3 | —14 | +7 | —8 | +8 | —10 | —4 | —13 | +49 | —20 | —50 | +3 | +33 | 0 | +12 | —20 | +16 | +22 |
| Carnatic | 34·3 | —14 | —14 | —11 | —26 | —13 | —1 | +5 | +16 | +33 | 0 | +21 | —15 | —39 | +24 | 0 | +7 | +20 | —6 | +13 | +15 |
| Arakan | 155·0 | +16 | —7 | —9 | 0 | +9 | —7 | —4 | +8 | —7 | —2 | —22 | +10 | —14 | +14 | —17 | +1 | +2 | +4 | —2 | +4 |
| Pegu | 73·0 | ? | ? | ? | ? | ? | ? | —16 | +20 | 0 | +10 | —25 | +6 | —7 | +11 | —15 | +3 | 0 | +3 | +7 | +2 |
| Tenasserim | 172·0 | —7 | +33 | +10 | 0 | +7 | +4 | +3 | +26 | —7 | —9 | +3 | +10 | —5 | —4 | —23 | —1 | +1 | +4 | +15 | —2 |

It is obvious, on a glance at the above tables, that in no single year of the series, was the rainfall deficient or excessive, simultaneously, in all parts of India. A deficiency was very general in 1864, 1866, 1868, 1873 and 1876, and there was an excessive rainfall in a large majority of the provinces in 1872, 1874, 1875, 1878, 1879 and 1882; but in every year there were some exceptions to the rule. The number of provinces in which the fall was above, about, or below the average in each year is shown in the second, third, and fourth columns of the following table, and the total areas of these provinces in the fifth, sixth, and seventh columns :—

*Table showing the proportional distribution of excessive or deficient rainfall, and the net mean excess or deficiency of the Indian area, in each of the twenty years 1864—1883.*

| Years. | Number of provinces. | | | Total areas in 1,000 square miles.[1] | | | Net anomaly, Indian area only.[2] | |
|---|---|---|---|---|---|---|---|---|
| | Fall excessive. | Fall normal. | Fall deficient. | Fall excessive. | Fall normal. | Fall deficient. | Excess. | Deficiency. |
| | | | | | | | Ins. | Ins. |
| 1864 | 4 | ... | 16 | 120 | ... | 889 | ... | —5·5 |
| 1865 | 8 | 1 | 11 | 367 | 61 | 543 | ... | —0·8 |
| 1866 | 6 | ... | 14 | 238 | ... | 732 | ... | —2·1 |
| 1867 | 8 | 2 | 10 | 450 | ? | 521 | +2·8 | ... |
| 1868 | 5 | ... | 16 | 166 | ... | 843 | ... | —6·6 |
| 1869 | 8 | 1 | 13 | 435 | 43 | 531 | +0·4 | ... |
| 1870 | 14 | ... | 10 | 686 | ... | 430 | +1·5 | ... |
| 1871 | 12 | 1 | 11 | 486 | 61 | 569 | +0·9 | ... |
| 1872 | 14 | 3 | 7 | 785 | 135 | 194 | +2·3 | ... |
| 1873 | 3 | 1 | 20 | 190 | 72 | 854 | ... | —4·5 |
| 1874 | 15 | 3 | 6 | 611 | 158 | 318 | +4·6 | ... |
| 1875 | 16 | ... | 8 | 778 | ... | 338 | +2·4 | ... |
| 1876 | 6 | ... | 18 | 438 | ... | 678 | ... | —4·5 |
| 1877 | 10 | ... | 14 | 502 | ... | 615 | ... | —4·3 |
| 1878 | 17 | 1 | 6 | 808 | 72 | 237 | +6·3 | ... |
| 1879 | 16 | 2 | 6 | 660 | 149 | 307 | +1·7 | ... |
| 1880 | 13 | 1 | 10 | 455 | 33 | 628 | ... | —1·6 |
| 1881 | 15 | ... | 9 | 747 | ... | 370 | +0·1 | ... |
| 1882 | 17 | 1 | 6 | 730 | 61 | 326 | +2·6 | ... |
| 1883 | 11 | 1 | 12 | 450 | ? | 667 | ... | —0·1 |

The figures of these six columns afford, however, but a very imperfect criterion of the real variation of the quantity of rain that falls in each year. In order to ascertain this with somewhat nearer approximation, we must take into account, not merely the areas, but also the absolute quantity discharged on each area, and deduce the mean of the whole. This, however, we cannot well do in the case of the provinces omitted from Table A on the foregoing page, and the Himalayan provinces and the coasts of Arakan and Tenasserim must therefore be omitted from the estimate. And since Pegu is, by this omission, separated from the Indian area proper, I have omitted it also, and have restricted the computation of the mean absolute variation to India proper south of the Himalaya, including Assam (and excluding the unrepresented regions of Western Rajputana and the tributary states in the east of the Peninsula), a total area of 1,083,500 square miles. The result, which is obtained by a process similar to that followed in computing the two last lines of the table on page 148, is given in the two right-hand columns of the above table. It expresses, with such approximation as the data admit of, the depth of a uniform sheet of water 1,083,500 square miles in extent, which is the excessive or deficient precipitation of the year on the average rainfall of the same area, which average, as stated on page 15, is represented by a similar sheet of water 42 inches in depth.

[1] With the omission of the Himalaya, Arakan, and Tenasserim.
[2] With the omission of the Himalaya, Arakan, Pegu, and Tenasserim.

The extreme variation of the rainfall of the Indian area, as above defined, and as shown by this table, is, therefore, 6·3 inches in excess (1878), and 6·6 in defect (1868) of the general average of 42 inches; about 15 per cent. in the former, and 16 per cent. in the latter direction. The mean variation, as computed from these twenty years, is + 2·8 inches or somewhat less than 7 per cent. of the total average; and (as will be seen by comparing therewith the figures of the mean variation column of the table on page 126), less than that of any single province of India with the exception of Assam and Eastern Bengal.

LOCAL COMPENSATION OF THE RAINFALL VARIATION STATISTICALLY CONSIDERED.—It follows from the fact last mentioned, and from those adduced on page 141, that the irregular variations of the rainfall, from year to year, at any given station or in any given province of India, are, to a considerable extent, compensated by variations of the opposite character, at some other stations or in some other part of the Indian area, as here considered. And by parity of reasoning, it may be inferred, with a high degree of probability, that could we ascertain the rainfall of the surrounding seas, and were we further to include the Burmese peninsula, and, still more, the whole of the monsoon region in the area of our computation, we should find that the amount of uncompensated irregularity would continually diminish, possibly even become evanescent. In this extreme conclusion, we are, however, by no means justified at present.

That there is, in fact, a certain opposition in the variations of the rainfall of the land and sea areas, appears to result from recorded facts. In the first place I may adduce the rainfall conditions which attend the formation of cyclones in the Bay of Bengal, and which I have summarised elsewhere[1] in the following terms:—

"Another condition which appears to be equally characteristic of the formation of cyclones, is that, during their formation, but little rain falls on the east and northern coasts of the Bay and in Bengal. On the other hand, ships that are crossing the middle of the Bay, the place of a cyclone's origin, at such times, invariably meet with torrential rain and an atmospheric pressure lower than that around the coasts. Ample evidence of this will be found in the various reports that have been published by the Bengal Meteorological Office of late years, and in some of Mr. Piddington's Memoirs."

In years, therefore, in which cyclones are comparatively frequent in the Bay, the precipitation over the Bay is probably enhanced at the expense of that on the land; and the more so in those cases, which are by no means infrequent, when the storm breaks up, either before reaching the land, or very shortly afterwards; and when, therefore, even in its later stages, it brings no considerable rainfall to the land region, or, at the utmost, such as is but local and short-lived.

Again, any partial failure of the Carnatic autumnal rains coincides, in some cases certainly, probably as a rule, with an increased rainfall on the Bay. That this is so might indeed be inferred from the abnormal variation of the wind direction which prevails at such seasons. The winds of the Carnatic are, then, more northerly than usual at this season, sometimes even north-westerly or land winds; which fact implies that the seat of the barometric minimum, instead of lying over the Carnatic, is situated further eastward over the Bay of Bengal, or on the equatorial sea to the south, and since the region of maximum precipitation either coincides with, or is immediately on, the borders of the barometric depression, it would follow that the rainfall, over that portion of the sea, is enhanced at the expense of the Carnatic plains. Certainly was this the case in the autumn of 1876, the year of the last great Madras famine. At page 92 of the official report on the Meteoro-

[1] Indian Meteorologist's *Vade Mecum*, page 250, Part II, paragraph 143.

logy of that year, it is observed: "In the south-east of the Bay of Bengal, the rainfall was unusually copious in the last three months of the year: this is the ordinary season of the heavy rains of the Carnatic * * * *. In 1876, this rainy monsoon of the Carnatic failed almost completely." Mr. Eliot, who has made a special study of the Meteorology of the Bay of Bengal, and whose long experience in the working of the storm-warning system of its coasts makes his conclusions especially weighty and trustworthy, has arrived independently at the same result. In his Administration Report for the year 1883-84 he observes: "Heavy continuous rain on the Madras coast, during the October transition period, is, as indicated by the condensation theory of cyclones, unfavourable to the formation of cyclonic whirls on the Bay at that time. Experience confirms this, and indicates that a strong north-east monsoon on the Madras coast, with heavy, or more or less continuous, rain over the land, is associated with an absence of cyclones in the Bay. The past year (1883) was a remarkable instance of this principle. The October transition period was characterized by unusually fine weather in the Bay and by the non-occurrence of a single storm until the 11th November, when rainfall ceased for some time in the Madras Presidency."

In the absence of rainfall registers for the sea area, it is impossible to work out this part of the problem in further detail: but with respect to the land, the statistics given in the two tables on the previous page, afford materials for a more detailed investigation, and one calculated to throw much light on the nature and determining causes of the rainfall vicissitudes in general, as well as to verify certain of the conclusions already reached, as to their magnitude and the extent to which they prevail.

In this part of the enquiry, I adopt as units, in the first place, the rainfall provinces already defined, treating them for the moment as of equal value. In the kaleidoscopic re-arrangements to which they will be subjected, the inequality of their areas may be disregarded; and, indeed, it will presently be seen that this assumption is justified by the near accordance of the results obtained with those which may be deduced from the consideration of the areas alone.

The method adopted is, in the first place, purely empirical. It will remain for subsequent enquiry to ascertain whether the relations brought to light by this method are susceptible of a rational and physical explanation.

The subjoined table gives an exhaustive classification of the coincidences and divergencies of the rainfall anomalies of the several provinces, taken in pairs; as shown by their algebraical signs (regardless of the amounts) in the table of percentages on page 150. Those cases, in which one term of the pair only is represented by a 0 are omitted as ambiguous; but those in which both terms are represented by 0 are treated as coincidences. A year, in which all 24 provinces are represented, and in which no zero occurs, affords 276 combinations; and if, therefore, there were no ambiguous cases, and the whole twenty years were fully represented, the total number of combinations enumerated would be 5,520; but in consequence of deficiencies and rejected cases, the actual number is reduced to 4,696. The arrangement of the table will be understood at a glance. Each vertical and horizontal column is indicated by the name of one of the rainfall provinces; and, at each intersection, is a figure indicating the number of years in which, in the percentage table on page 150, the rainfall anomalies of the two provinces in question have either the same or opposite algebraical signs; the coincidences being below, and to the left of, the diagonal of asterisks, the discordances above, and to the right of it.

*Table showing the number of years (during the twenty years 1864—1883) in which the rainfall anomalies were in the same, or in opposite directions, in the rainfall provinces taken in pairs.*

| | North-Western Himalaya. | Punjab Plains. | North-Western Provinces & Oudh. | Rajputana. | Central India States. | Behar. | Western Bengal. | Lower Bengal. | Central Himalaya. | Assam and Eastern Bengal. | Orissa and Northern Circars. | Central Provinces, South. | Berar and Khandesh. | Guzerat. | Sind and Cutch. | North Deccan. | Konkan and Ghâts. | Malabar and Ghâts. | Hyderabad. | Mysore and Bellary. | Carnatic. | Arakan. | Pegu. | Tenasserim. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Variations opposite. | | | | | | | | | | | | | | | | | | | | | | | |
| North-Western Himalaya | * | 9 | 6 | 7 | 8 | 8 | 8 | 12 | 5 | 5 | 8 | 6 | 7 | 5 | 8 | 8 | 5 | 5 | 5 | 8 | 5 | 10 | 6 | 8 |
| Punjab Plains | 11 | * | 11 | 8 | 8 | 13 | 7 | 7 | 10 | 10 | 11 | 8 | 8 | 7 | 5 | 9 | 9 | 7 | 7 | 12 | 12 | 11 | 7 | 11 |
| North-Western Provinces and Oudh. | 14 | 9 | * | 9 | 6 | 4 | 8 | 14 | 7 | 4 | 8 | 7 | 5 | 9 | 12 | 8 | 8 | 9 | 5 | 10 | 6 | 9 | 7 | 9 |
| Rajputana | 13 | 12 | 11 | * | 7 | 11 | 9 | 13 | 10 | 6 | 9 | 9 | 7 | 7 | 7 | 11 | 7 | 10 | 6 | 9 | 9 | 11 | 4 | 11 |
| Central India States | 11 | 11 | 13 | 12 | * | 8 | 8 | 11 | 8 | 7 | 9 | 8 | 6 | 9 | 7 | 10 | 10 | 11 | 7 | 14 | 9 | 13 | 5 | 6 |
| Behar | 12 | 7 | 16 | 9 | 11 | * | 4 | 10 | 5 | 4 | 8 | 7 | 7 | 8 | 12 | 11 | 12 | 11 | 9 | 8 | 6 | 7 | 7 | 7 |
| Western Bengal | 8 | 9 | 8 | 7 | 7 | 12 | * | 4 | 7 | 5 | 7 | 7 | 9 | 9 | 7 | 9 | 11 | 8 | 11 | 6 | 6 | 7 | 9 | 7 |
| Lower Bengal | 8 | 13 | 6 | 7 | 8 | 10 | 12 | * | 8 | 12 | 14 | 11 | 13 | 9 | 10 | 13 | 16 | 11 | 11 | 11 | 12 | 7 | 8 | 9 |
| Central Himalaya | 9 | 4 | 7 | 4 | 5 | 9 | 7 | 6 | * | 4 | 5 | 5 | 4 | 3 | 6 | 3 | 5 | 6 | 4 | 2 | 4 | 9 | 8 | 5 |
| Assam and Eastern Bengal | 13 | 8 | 14 | 12 | 10 | 14 | 9 | 6 | 8 | * | 2 | 3 | 3 | 5 | 8 | 8 | 6 | 4 | 4 | 8 | 6 | 9 | 6 | 6 |
| Orissa and Northern Circars | 12 | 9 | 12 | 11 | 10 | 12 | 9 | 6 | 9 | 16 | * | 3 | 3 | 7 | 8 | 8 | 6 | 11 | 4 | 7 | 7 | 11 | 8 | 7 |
| Central Provinces, South | 12 | 10 | 11 | 9 | 9 | 11 | 8 | 7 | 8 | 13 | 15 | * | 2 | 6 | 10 | 5 | 6 | 7 | 3 | 5 | 4 | 7 | 4 | 9 |
| Berar and Khandesh | 11 | 10 | 13 | 11 | 11 | 11 | 5 | 5 | 8 | 13 | 15 | 16 | * | 5 | 8 | 4 | 5 | 8 | 1 | 7 | 6 | 9 | 5 | 9 |
| Guzerat | 13 | 11 | 9 | 11 | 8 | 10 | 5 | 9 | 9 | 11 | 11 | 12 | 13 | * | 7 | 7 | 7 | 10 | 4 | 6 | 8 | 7 | 5 | 6 |
| Sind and Cutch | 12 | 15 | 8 | 13 | 12 | 8 | 9 | 10 | 8 | 10 | 12 | 8 | 10 | 11 | * | 10 | 6 | 9 | 7 | 11 | 11 | 16 | 9 | 8 |
| North Deccan | 11 | 10 | 11 | 8 | 8 | 8 | 6 | 6 | 10 | 9 | 11 | 12 | 13 | 12 | 9 | * | 6 | 5 | 2 | 5 | 5 | 9 | 6 | 11 |
| Konkan and Ghâts | 15 | 11 | 12 | 13 | 9 | 8 | 5 | 4 | 9 | 12 | 14 | 12 | 13 | 11 | 14 | 13 | * | 5 | 2 | 8 | 7 | 12 | 6 | 10 |
| Malabar and Ghâts | 15 | 7 | 11 | 10 | 8 | 9 | 8 | 9 | 8 | 10 | 9 | 11 | 10 | 8 | 11 | 14 | 15 | * | 5 | 7 | 4 | 9 | 5 | 13 |
| Hyderabad | 9 | 7 | 9 | 8 | 6 | 5 | 3 | 3 | 9 | 8 | 10 | 10 | 12 | 8 | 7 | 11 | 12 | 9 | * | 5 | 5 | 8 | 6 | 8 |
| Mysore and Bellary | 11 | 7 | 9 | 9 | 6 | 11 | 9 | 8 | 11 | 9 | 12 | 12 | 10 | 11 | 8 | 13 | 11 | 12 | 8 | * | 3 | 8 | 7 | 9 |
| Carnatic | *13 | 6 | 12 | 9 | 8 | 12 | 8 | 5 | 8 | 10 | 11 | 12 | 10 | 8 | 7 | 12 | 11 | 14 | 7 | 14 | * | 8 | 4 | 10 |
| Arakan | 9 | 8 | 10 | 8 | 5 | 12 | 8 | 12 | 5 | 8 | 8 | 10 | 8 | 10 | 3 | 9 | 7 | 10 | 6 | 10 | 9 | * | 2 | 10 |
| Pegu | 6 | 5 | 5 | 8 | 6 | 5 | 3 | 5 | 3 | 4 | 5 | 7 | 6 | 7 | 3 | 7 | 6 | 7 | 6 | 4 | 6 | 10 | * | 6 |
| Tenasserim | 11 | 8 | 10 | 8 | 12 | 12 | 9 | 10 | 9 | 11 | 12 | 8 | 8 | 11 | 11 | 7 | 9 | 6 | 6 | 9 | 7 | 10 | 6 | * |
| | Variations similar. | | | | | | | | | | | | | | | | | | | | | | | |

In the first place, let us see how far, on the evidence of the table, the provincial anomalies of the rainfall are compensated within the area here represented. The sum of the dissimilar variations (the figures above the diagonal of asterisks) is 2,082, that of the similar variations (below the diagonal) 2,589; numbers which are approximately as 4 to 5: the number of coincidences is, therefore, $\frac{1}{9}$ of the whole greater than the number of divergencies. But since in the possible combinations in pairs of 24 numbers, half of which are of one sign and half of another, the pairs with similar signs would be only $\frac{11}{12}$ of those with dissimilar signs, or as 11 to 12, the large excess of coincidences, exhibited by the table, must be due to the preponderance of either the + or — variations in most years of the record. A simple calculation, based on the algebraical formula for combinations, shows that the above proportion of 4 divergencies to 5 coincidences results, when, of the 24 provinces, 16·6 on an average, have a positive algebraical sign and 7·4 a negative, or *vice versâ*.[1] In other words, on the average of the 20 years, rather more than two-thirds of the rainfall provinces agree, annually, in having either an excess or deficiency of rain, and one-third vary in the opposite direction.

A comparison of the areas of excessive or deficient rainfall in the 4th and 6th columns of the table, on page 154, yields almost identical results. Thus, if we take the ratio of the major to the minor area in each year, without regard to which of the two has an excessive or deficient fall, and compute the geometric mean of these ratios for the 20 years ($n$th root of their product, when $n$ is the number of years), the result is that the major area is almost exactly the double of the minor area (accurately 1·9 : 1).

But it must not be inferred from these data, that the anomalies of the quantity of the precipitation are compensated in the same proportion. If, instead of comparing simply the areas, we take, as the terms of comparison, the products of the areas into the excess or

[1] The following is the working of the problem. Let there be $n$ balls, of which $m$ are white and $n - m$ black. Combined in pairs, the total number of possible combinations being—

$$\frac{n\,(n-1)}{2}$$

there will be

$$\frac{(n-m)\,(n-m-1)+m\,(m-1)}{2} = \frac{n\,(n-1)}{2} - m\,(n-m) \qquad (1)$$

similar pairs, and

$$m\,(n-m) \qquad (2)$$

dissimilar pairs. In the case in the text we have

$$\frac{\frac{n\,(n-1)}{2} - m(n-m)}{m\,(n-m)} = \frac{n\,(n-1)}{2m\,(n-m)} - 1 = \frac{5}{4} \qquad (3)$$

and, inserting the numerical value of $n = 24$ in this formula, we have a quadratic equation, from which the value of $m$ is easily found

$$m = 12 \pm 4{\cdot}6 = 16{\cdot}6 \text{ or } 7{\cdot}4.$$

If $m = \frac{n}{2}$, and $n$, as before, 24, (2) becomes

$$\frac{n^2}{4} = 144$$

and, since $\frac{n\,(n-1)}{2} = 276$ and $276 - 144 = 132$, we have, for the ratio of similar to dissimilar pairs,

$$\frac{132}{144} = \frac{11}{12}$$

as stated in the text.

deficiency in each, and compute the geometric mean of their ratios as in the former case, the result is that the absolute excess or deficiency of precipitation, on the major area, is to its opposite on the minor area, as 3·6 : 1, which is exactly the square of the ratio in the previous case.

Hence it may be concluded that, on the average, *the greater the area affected, in any year, by either excessive or deficient rainfall, the greater, in about the same proportion, is the mean excess or deficiency of precipitation on that area.*

LOCAL COMPENSATION OF THE RAINFALL VARIATION GEOGRAPHICALLY CONSIDERED.—I now pass on to the consideration of the question of compensation in its geographical aspect, *viz.*, the relations of the several rainfall provinces to each other, as tending to vary either in the same or opposite directions in any given year. I shall, in the first place, adopt, as in the above case, a purely empirical treatment of the data, as being best fitted to display the real relations of different parts of the country to each other, in respect of the anomalous distribution of rainfall; apart from all preconceived explanations, and as affording therefore, in its results, the safest grounds for the subsequent enquiry into the physical causes of the anomalies.

It has been shown in the preceding discussion that, on an average, in any given year, two-thirds of the area (and also of the rainfall provinces) agree in having an excessive or deficient rainfall and only one-third varies in the opposite direction. The proportions are accurately as 16·6 : 7·4. Also, that under these conditions, if the rainfall provinces be taken in pairs exhaustively, the coincident pairs will be to the divergent pairs of variations in the proportion of 5 to 4. If, then, there were no special tendency in any pair of provinces to vary in the same direction, if coincidence and divergence were entirely fortuitous, on the average of a long period, every pair of provinces would give coincidences and divergencies in this same proportion (5 of the former to 4 of the latter); and in 20 years there would be approximately 11 coincidences and 9 divergencies; (more accurately 11·1 : 8·9). But in the table on page 154, owing to the rejection of ambiguous cases and the incompleteness of the registers of certain provinces for the full series of 20 years, the sum of the divergences and coincidences of a pair of stations in many cases falls short of 20. In all such cases, 11 coincidences will indicate more or less tendency to vary coincidently, and 9 divergencies more or less tending to vary divergently. For this reason, in order to ascertain the relative tendency of the several pairs of provinces to vary in the same or opposite directions, it will be necessary to take the ratio of coincidences to divergencies in each case. The proportion 11·1 : 8·9 = 1·247 indicates no special tendency, and is the ratio of indifference. Any ratio yielding a higher factor than 1·247, or say 1·25 = $\frac{5}{4}$ indicates a tendency to coincidence, and one yielding a lower factor to divergence. The following table gives the factors thus obtained; but, with a view to the more perspicuous exhibition of the results, they have been uniformly reduced by $\frac{1}{4}$. Thus treated, unity becomes the ratio *of indifference*: all factors above unity indicate a preponderant tendency to coincidence in direct proportion to their value, and those below 1, a tendency to divergence in inverse proportion to their value. The factors 2 or 3 indicate that, apart from general influences, the tendency of two provinces to vary in the same direction is as 2 or 3 to 1: such factors as $\frac{1}{2}$ or $\frac{1}{3}$ indicate that, in like manner, the tendency to opposite variation is as 2 or 3 to 1.*

*Table showing the ratio of years of coincident to those of opposite variation between all the rainfall provinces taken in pairs.*

| | N.-W. Himalaya. | Punjab Plains. | N.-W. Provinces and Oudh. | Rajputana. | Central India States. | Behar. | Western Bengal. | Lower Bengal. | Central Himalaya. | Assam and Eastern Bengal. | Orissa and Northern Circars. | Central Provinces, South. | Berar and Khandesh. | Gujerat. | Sind and Cutch. | North Deccan. | Konkan and Ghats. | Malabar and Ghats. | Hyderabad. | Mysore and Bellary. | Carnatic. | Arakan. | Pegu. | Tenasserim. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Punjab Plains. | 0·1 | $\frac{1}{15}$ | 1·0 | 1·7 | 1·1 | 2·4 | 2·4 | $\frac{1}{17}$ | 1·9 | 6·4 | 4·0 | 6·4 | 2·1 | 1·3 | $\frac{1}{14}$ | 1·7 | 2·4 | 4·8 | 1·3 | 1·1 | 3·7 | 1·1 | 4·0 | $\frac{1}{12}$ |
| North-Western Provinces and Oudh. | 1·9 | $\frac{1}{15}$ | 1·0 | 1·7 | 1·1 | 2·4 | 2·4 | $\frac{1}{17}$ | 1·4 | 3·5 | 4·0 | 1·6 | 2·1 | 1·3 | $\frac{1}{37}$ | $\frac{1}{11}$ | 1·3 | 1·1 | 1·1 | 1·0 | 1·1 | 1·2 | 1·1 | $\frac{1}{12}$ |
| Rajputana | 1·5 | $\frac{1}{12}$ | 3·2 | 1·4 | 1·1 | 2·8 | 1·6 | $\frac{1}{16}$ | 2·0 | 3·5 | 4·0 | 1·3 | 2·1 | 1·3 | $\frac{1}{37}$ | $\frac{1}{11}$ | 1·3 | 1·4 | 1·1 | 1·7 | 3·7 | 1·1 | 4·0 | $\frac{1}{12}$ |
| Central India States | 1·1 | $\frac{1}{23}$ | 1·0 | $\frac{1}{31}$ | 1·1 | 2·8 | 1·7 | $\frac{1}{17}$ | 1·4 | 2·9 | 1·3 | 1·5 | 1·5 | 1·3 | $\frac{1}{17}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Behar | 1·2 | $\frac{1}{16}$ | 1·2 | 1·6 | 1·1 | 2·8 | 1·4 | $\frac{1}{12}$ | 1·4 | 3·5 | 4·0 | 1·2 | 2·1 | 1·3 | $\frac{1}{11}$ | $\frac{1}{11}$ | 1·4 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Western Bengal | 1·3 | $\frac{1}{15}$ | 1·3 | 1·3 | 1·1 | 2·4 | 2·4 | $\frac{1}{12}$ | 1·3 | 3·5 | 4·0 | 1·3 | 2·1 | 1·3 | $\frac{1}{37}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Lower Bengal | 1·9 | $\frac{1}{15}$ | 2·9 | 3·1 | 1·7 | 2·4 | 2·4 | $\frac{1}{12}$ | 1·6 | 3·5 | 4·0 | 1·3 | 2·1 | 1·3 | $\frac{1}{37}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Central Himalaya | 1·4 | $\frac{1}{31}$ | 1·2 | 1·6 | 1·1 | 2·8 | 1·4 | $\frac{1}{12}$ | 1·4 | 2·9 | 1·3 | 1·5 | 1·5 | 1·3 | $\frac{1}{37}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Assam and Eastern Bengal. | 2·0 | $\frac{1}{16}$ | 2·8 | 2·6 | 1·1 | 2·8 | 1·4 | $\frac{1}{12}$ | 1·4 | 2·9 | 1·3 | 1·5 | 1·5 | 1·3 | $\frac{1}{37}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Orissa and Northern Circars. | 1·2 | $\frac{1}{15}$ | 1·2 | 1·0 | $\frac{1}{11}$ | 1·2 | 1·0 | $\frac{1}{22}$ | 1·3 | 1·2 | 1·1 | 1·1 | 1·0 | 1·1 | $\frac{1}{37}$ | $\frac{1}{11}$ | 1·3 | 1·1 | $\frac{1}{11}$ | $\frac{1}{12}$ | 1·1 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Central Provinces, South. | 1·6 | $\frac{1}{15}$ | 1·0 | 1·2 | $\frac{1}{11}$ | 1·3 | 1·0 | $\frac{1}{22}$ | 1·3 | 1·2 | 1·1 | 1·1 | 1·0 | 1·1 | $\frac{1}{37}$ | $\frac{1}{11}$ | 1·3 | 1·1 | $\frac{1}{11}$ | $\frac{1}{12}$ | 1·1 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Berar and Khandesh | 1·3 | $\frac{1}{16}$ | 1·0 | 1·3 | 1·5 | 1·3 | 1·0 | $\frac{1}{22}$ | 1·6 | 2·4 | 1·1 | 2·7 | 1·4 | 1·3 | $\frac{1}{37}$ | $\frac{1}{11}$ | 1·3 | 1·1 | $\frac{1}{11}$ | $\frac{1}{12}$ | 1·1 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Gujerat | 2·1 | $\frac{1}{17}$ | 2·1 | 1·3 | $\frac{1}{14}$ | 1·4 | 1·3 | $\frac{1}{12}$ | 1·3 | 2·4 | 1·3 | 1·6 | 2·1 | 1·3 | $\frac{1}{37}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Sind and Cutch | 1·2 | $\frac{1}{11}$ | 1·1 | 1·7 | 1·1 | 2·4 | 1·3 | $\frac{1}{12}$ | 1·6 | 2·9 | 1·3 | 1·9 | 2·6 | 1·4 | $\frac{1}{14}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| North Deccan | 1·1 | $\frac{1}{11}$ | 1·1 | 1·2 | 1·1 | 2·4 | 1·3 | $\frac{1}{12}$ | 1·6 | 2·9 | 1·3 | 1·6 | 2·1 | 1·3 | $\frac{1}{17}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Konkan and Ghats | 2·4 | $\frac{1}{12}$ | 1·0 | 1·5 | 1·0 | 2·4 | 1·3 | $\frac{1}{12}$ | 1·4 | 2·9 | 1·3 | 1·6 | 2·1 | 1·3 | $\frac{1}{17}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Malabar and Ghats | 2·4 | $\frac{1}{12}$ | 1·4 | 1·2 | 1·1 | 2·8 | 1·4 | $\frac{1}{12}$ | 1·4 | 2·9 | 1·3 | 1·6 | 2·1 | 1·3 | $\frac{1}{17}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Hyderabad | 1·4 | $\frac{1}{12}$ | 1·4 | 1·2 | 1·1 | 2·8 | 1·4 | $\frac{1}{12}$ | 1·4 | 2·9 | 1·3 | 1·6 | 2·1 | 1·3 | $\frac{1}{17}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Mysore and Bellary | 1·1 | $\frac{1}{21}$ | 1·1 | 1·4 | 1·1 | 2·8 | 1·4 | $\frac{1}{12}$ | 1·4 | 2·9 | 1·3 | 1·6 | 2·1 | 1·3 | $\frac{1}{17}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Carnatic | 2·1 | $\frac{1}{25}$ | 1·6 | 1·2 | 1·1 | 2·8 | 1·4 | $\frac{1}{12}$ | 1·4 | 2·9 | 1·3 | 1·6 | 2·1 | 1·3 | $\frac{1}{17}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Arakan | 1·1 | $\frac{1}{17}$ | 1·1 | 1·2 | 1·1 | 2·8 | 1·4 | $\frac{1}{12}$ | 1·4 | 2·9 | 1·3 | 1·6 | 2·1 | 1·3 | $\frac{1}{17}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Pegu | 1·3 | $\frac{1}{17}$ | 1·7 | 1·6 | 1·1 | 2·8 | 1·4 | $\frac{1}{12}$ | 1·4 | 2·9 | 1·3 | 1·6 | 2·1 | 1·3 | $\frac{1}{17}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |
| Tenasserim | 1·1 | $\frac{1}{17}$ | 1·1 | 1·7 | 1·1 | 2·8 | 1·4 | $\frac{1}{12}$ | 1·4 | 2·9 | 1·3 | 1·6 | 2·1 | 1·3 | $\frac{1}{17}$ | $\frac{1}{11}$ | 1·3 | 2·8 | $\frac{1}{11}$ | $\frac{1}{12}$ | 2·2 | $\frac{1}{18}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |

In this table we may neglect, as insignificant, all factors greater than ½ but less than 2, that is to say, all cases in which the ratio of preponderance, in either direction, is less than 2 : 1. The residual cases are enumerated in the following table, in which ratios of 3 : 1 and upwards are indicated by spaced letters, ratios of 4 : 1 by one (*), and those of 5 : 1 and upwards by two asterisks (**)—

| *Provinces compared.* | *Variation similar.* | *Variation opposite.* |
|---|---|---|
| North-Western Himalaya | Konkan, &c., Malabar, &c., Carnatic, Guzerat, Assam, &c. | |
| Punjab Plains | Sind, &c. | Central Himalaya, Behar, Mysore,* &c., Carnatic. |
| North-Western Provinces and Oudh. | Behar, Assam, &c., Berar and Khandesh | Lower Bengal, Sind, &c. |
| Rajputana | | Central Himalaya, Lower Bengal. |
| Central India States | | Arakan, Mysore, &c., Central Himalaya. |
| Behar | North-Western Provinces, &c., Assam, &c., Western Bengal. | Punjab, &c., Hyderabad, Sind, &c., Konkan, &c. |
| Western Bengal | Behar, Lower Bengal | Hyderabad,* Pegu, Guzerat, Berar, &c., Konkan, &c. |
| Lower Bengal | Western Bengal | Konkan,** Hyderabad,* &c., Berar, &c., Carnatic, North-Western Provinces, &c., Orissa, &c., Rajputana, Assam, &c., North Deccan, North Western Himalaya, Central Provinces, South Pegu. |
| Central Himalaya | Mysore and Bellary,* North Deccan, Guzerat. | Punjab, Rajputana, Pegu, Arakan, Central India. |
| Assam and Eastern Bengal | Orissa, &c.,** Central Provinces South, Berar, &c., Guzerat, North-Western Provinces, &c., Behar, North-Western Himalaya, Malabar, &c. | Pegu. |
| Orissa and Northern Circars | Assam,** &c., Central Provinces* Berar,* &c., Hyderabad. | Lower Bengal, Pegu. |
| Central Provinces, South | Berar,** &c., Orissa,* &c., Assam, &c., Hyderabad, Carnatic. | Lower Bengal. |
| Berar and Khandesh | Hyderabad,** Central Provinces South,** Orissa,* &c., Assam, &c., North Deccan, North Western Provinces, &c., Guzerat, Konkan, &c. | Lower Bengal, Western Bengal. |
| Guzerat | Assam, &c., Central Himalaya, North-West Himalaya, Berar, &c. | Western Bengal. |
| Sind and Cutch | Punjab | Arakan,** Pegu, N.-W. Provinces, &c., Behar, Carnatic. |
| North Deccan | Hyderabad,* Central Himalaya, Berar, &c., Malabar, &c., Mysore, &c. | Lower Bengal, Western Bengal, Tenasserim. |
| Konkan and Ghâts | Hyderabad,* Malabar, &c., North-West Himalaya, Berar, &c. | Lower Bengal,** Western Bengal, Behar, Arâkan. |
| Malabar and Ghâts | Carnatic, North Deccan, Konkan, &c., North-West Himalaya, Assam, &c. | Tenasserim. |
| Hyderabad | Berar, &c.,** Konkan, &c.,* North Deccan,* Central Provinces South, Orissa, &c. | Lower Bengal,* Western Bengal,* Behar. |
| Mysore and Bellary | Central Himalaya,* Carnatic, North Deccan. | Central India, Punjab, Pegu. |
| Carnatic | Mysore, &c., Malabar, &c., Central Provinces South, North-West Himalaya. | Lower Bengal, Punjab, Sind, &c. |
| Arakan | Pegu* | Sind, &c.,** Central India, Central Himalaya, Konkan, &c. |
| Pegu | Arakan* | Central Himalaya, Western Bengal, Sind, Lower Bengal, Assam, Orissa, &c., Mysore, &c. |
| Tenasserim | None | Malabar, &c., North Deccan. |

Taking, in the first place, the coincidences that are most conspicuous, that is in the ratio of 3 to 1 and upwards, and arranging them in descending order, we have—

| *Ratio.* | |
|---|---|
| 9·6 : 1 | Berar and Khandesh with Hyderabad. |
| 6·4 : 1 | Berar and Khandesh with Central Provinces South. |
| 6·4 : 1 | Assam and Eastern Bengal with Orissa and Northern Circars. |
| 4·8 : 1 | Konkan and Ghâts with Hyderabad. |
| 4·4 : 1 | North Deccan with Hyderabad. |
| 4·4 : 1 | Mysore and Bellary with Central Himalaya. |
| 4·0 : 1 | Berar and Khandesh with Orissa and Northern Circars. |
| 4·0 : 1 | Central Provinces South with Orissa and Northern Circars. |
| 4·0 : 1 | Arakan with Pegu. |
| 3·7 : 1 | Mysore and Bellary with Carnatic. |
| 3·5 : 1 | Central Provinces South with Assam and Eastern Bengal. |
| 3·5 : 1 | Berar and Khandesh with Assam and Eastern Bengal. |
| 3·2 : 1 | North-West Provinces and Oudh with Behar. |

Next, taking the most conspicuous cases of divergent variation in the same manner and order, we have—

| *Ratio.* | |
|---|---|
| 5 : 1 | Lower Bengal from the Konkan and Ghâts.<br>Arakan from Sind. |
| 4·6 : 1 | Lower Bengal from Hyderabad.<br>Western Bengal from Hyderabad. |
| 3·7 : 1 | Western Bengal from Pegu. |
| 3·3 : 1 | Central Himalaya from Pegu. |
| 3·2 : 1 | Lower Bengal from Berar and Khandesh.<br>Ditto from Carnatic.<br>Arakan from Central India States. |
| 3·1 : 1 | Central Himalaya from Punjab.<br>Ditto from Rajputana. |

The natural grouping of the rainfall provinces, thus disclosed, is in some cases remarkable. We have, in the first place, Berar and Khandesh, the Central Provinces, Orissa and the Northern Circars, together occupying most of the northern portion of the Peninsula, in intimate accordance, not only with each other, which might perhaps have been expected, but also with Assam and Eastern Bengal; while Lower Bengal tends to vary in the opposite direction to all, and especially to Berar and Khandesh. This is the more remarkable, because the concordance between Orissa and the Northern Circars on the one side of Bengal, and Assam on the other, is nearly the strongest in the table.

Another striking group, with coincident rainfall variations, is presented by the Konkan and Ghâts, the North Deccan and Hyderabad, the latter linking them to Berar and Khandesh of the previous group, while Lower Bengal, and less generally Western Bengal, show strongly opposite conditions.

The remaining conspicuous cases of sympathetic groups are Arakan with Pegu, Mysore and Bellary with the Carnatic, and the North-West Provinces with Behar. But here again we find that, to the second of these, Lower Bengal stands in strong opposition; while there is apparently a strange sympathy between Mysore and Bellary and the Central Himalaya. This may, however, be fortuitous, the data for the comparison being somewhat imperfect.

On the other hand, besides the very striking opposition of variation shown by Lower Bengal and, in a minor degree, by Western Bengal to nearly all other parts of India, whether contiguous or remote, and especially to the Peninsula, the following cases of alternative or

compensatory variation appear—Arakan on the one hand, and Sind and in a minor degree, the states of Central India on the other; and the Central Himalaya on the one hand, and Pegu, the Punjab and Rajputana on the other. But, as already remarked, the variations of the Central Himalayan rainfall are incompletely determined.

In order to explain these relations, in so far at least as they are susceptible of explanation by the light of our present experience, it will be necessary to examine in a more detailed manner than has hitherto been attempted the anomalous conditions of other meteorological elements, more especially those bearing on the movements of the atmosphere which have accompanied the variations of the rainfall in past years. And this accordingly will be my next business. But meanwhile, I may point to one or two facts relevant to the subject before us, which have already received attention in the earlier part of this Memoir.

In the first place, it is to be noticed that Berar and Khandesh, the Central Provinces south of the Satpura and Orissa all receive their principal rain from the western branch of the monsoon, and lie immediately south of the Satpura range and also of the barometric trough, described at page 23, as the average meeting-place and chief seat of convection of the two branches of the monsoon. It has also been mentioned, and it will be amply demonstrated in the succeeding pages, that the most ordinary path of the cyclonic vortices, which bring the heaviest rain, is along this trough; and when, as frequently happens, one of these vortices takes a westerly course from Bengal towards Kathiawar, each of the above provinces, in succession, receives a more or less excessive precipitation from the westerly winds which pour in towards the southern quadrants of the storm.

On the other hand, if the storms generated in the north of the Bay take a north-westerly course or one somewhat more northerly, the heaviest rainfall is brought by the winds feeding it from the Bay of Bengal, and takes place over Lower Bengal or, alternatively, over Western Bengal or Behar. Still more is this the case, when a series of vortices are formed, in rapid succession, in the extreme north of the Bay, and are either there stationary or merely move a little way to the north, disappearing over the delta or in Northern Bengal.

Between Lower Bengal, Western Bengal, and Behar, which are chiefly, or in the case of Western Bengal only in part, within the domain of the Eastern or Bengal branch of the monsoon, the concordance is but slight, and indeed between Lower Bengal and Behar there is none whatever.

The concordance of Hyderabad with the North Deccan, the Konkan and Berar and Khandesh, all contiguous provinces, and almost exclusively within the domain of the western branch of the monsoon, can scarcely be dependent, to the same extent, on the same kind of conditions as that of the group of provinces immediately to the north and east of them, *viz.*, on the course of cyclonic vortices. It may however be noticed that, it is precisely these provinces of the Peninsula which are ordinarily debarred from the spring rainfall, and the cause of this deprivation has been shown to be the prevalence of dry land winds at that season. It will appear afterwards, that the failure of the monsoon rainfall in Hyderabad and the Deccan, which is always coincident with a great diminution of that on the Konkan and Ghâts, is associated with a northerly tendency of the winds, implying more or less admixture of dry air from the north-west with the western branch of the monsoon. It is noteworthy that, on such occasions, the Bengal rainfall, more particularly that of Northern and Eastern Bengal, is unusually heavy.

## METEOROLOGICAL HISTORY OF THE TEN YEARS 1875—1884.

In the preceding investigation, I have followed a method purely empirical, and have sought merely to group the facts in a statistical form, apart from any theory of causation. Only in the final paragraphs, is any allusion made to the physical causes that influence this grouping, and which must be intimately connected with those that determine the excess or deficiency of the rainfall in each case. I have now to enquire into the nature of these causes, and for this purpose it will be necessary to have recourse to the original data, recorded in the meteorological history of past years. It will be of little use to extend the enquiry further back than 1875, in which year, for the first time, the meteorological statistics of the whole, or nearly the whole, of the country were brought together on a uniform system. The investigation will therefore be restricted to the nine years, 1875 to 1883; but these include two years of great and general deficiency, *viz.*, 1876 and 1877; and one year, 1878, with the most copious general rainfall of the whole 20 years. Besides these, several other years afford instances of a large local excess or deficiency; and, for our present purpose, these instances are not less instructive than the former. As our first business is simply to set forth the elementary facts of observation, I shall consider the years in their chronological order.

The object immediately before us is to ascertain what peculiarities, either in the statical condition or the movements of the atmosphere, are essentially associated with this or that distribution of the rainfall. Some of these indeed, *viz.*, variations of the humidity of the atmosphere and the cloudiness of the skies, are so obviously coincident with the frequency or abundance of the rainfall, that it is necessary to include them in this inquiry; and others again, such as the temperature of the land surface and the air, have been shown themselves to depend on the rainfall to such an extent, that we may almost leave them out of account in an investigation which is chiefly concerned with the causes of its vicissitudes.

There remain, *first*, the variations of the prevailing wind currents, both in direction and rate of movement; *second*, variations in the distribution of atmospheric pressure regarded as deviations from the average or normal scheme, illustrated on Plates III to V; and, *third*, the frequency and courses of cyclonic storms which have the effect of concentrating a heavy precipitation over a limited tract of country, while depriving a generally larger area of that sporadic rainfall which is otherwise the ordinary form taken by the summer rains.

Of these, the first, *viz.*, the variations of the winds, is the most important, and were it possible with our present data to investigate it thoroughly, to take into consideration the movements of the higher, as well as the lower, strata of the atmosphere, we should doubtless find therein the key of the whole problem. But, for various reasons, the wind registers are among the least satisfactory of those which our system of observations affords us. In India, perhaps more than in most countries, owing to the feebleness of the greater currents, conditions that are merely local, exercise a preponderant influence on the direction and force of the lower winds: and with winds so light as those which prevail in most parts of India, small variations in the construction, condition, and position of the instruments used, become important, but unascertainable elements, affecting their

apparent direction and velocity. Trustworthy observations of the movements of the higher currents, are not to be expected with observers, of the class who keep nearly all the meteorological registers; and except at the few observatories furnished with anemographs, those of the lower currents are too infrequent to furnish very precise information of their variations in any given month and year.

The records of atmospheric pressure stand on a different footing. From the first establishment of the Meteorological Department, particular care has been given to the comparison of all barometers with a common standard, and to their subsequent reverification as often as opportunity may offer. The elevations of all barometer cisterns have been determined, with a degree of exactitude, I believe, exceeding that attained in most European countries; and whenever an instrument has been removed, the change of level has been determined to a small fraction of a foot. Thus, all constant sources of error that might impair the comparability of the registers have been studiously eliminated, except in some few cases; and the control exercised over the barometric registers, by the method of comparison adopted in the daily and annual reports, is quite sufficient to ensure the detection and rejection of those exceptional cases. The barometric readings therefore afford a class of data, far more rigorously comparable with each other and with their respective average values, than do the winds; they are affected more or less directly by the condition of every part of the superincumbent and surrounding atmosphere, and their relations to the movements of the same air stratum are simple and well known; they may be therefore accepted with considerable confidence, as indicating modifications of the prevailing winds, while they afford other important information respecting the condition of the higher atmospheric strata.

So dominant are the regular phases of the annual meteorological cycle in India, that even the greatest vicissitudes of our seasons but slightly modify the distribution of atmospheric pressure, characteristic of any given season. In order, therefore, to render these modifications appreciable and to exhibit their characteristic differences clearly, I have found it convenient to treat them as an independent element, apart from the normal distribution, and to represent them on charts by means of baric isabnormals, or lines of equal deviation from the general average or normal, of the month or other period in question. On Plates XII, XIV, XV and XVI, are shown both the isobars and baric isabnormals for sixteen months of the years 1876 and 1877, the former in black, the latter in green; and on Plate XVII, the baric isabnormals alone for eight months of the year 1878. These latter distinguish, by the character of the lines, those parts of the country in which the pressure is above from those where it is below the normal standard, the dividing line of no variation being a broad green line, while lines of excessive pressure are drawn as continuous lines, and those of deficient pressure as dotted lines. The figures are placed on the side of the higher pressure in the former, and the lower pressure in the latter.

From these isabnormals, the corresponding abnormal variations of the winds may be inferred, since they bear the same relation to them that the observed wind directions do to a similar system of isobars. Thus, it would be inferred from the meridional course of the isabnormals in May 1876, that north-westerly winds would be unusually prevalent, (or south-east winds less so,) in parts of North-Western India and in the Peninsula; and from the fact that the isabnormals of July and August 1878 form parts of a cyclonic system centering about the Gulf of Cambay, it would be inferred that the easterly winds of the

Gangetic plain were unusually developed, and that an undue amount of precipitation was probably concentrated in some portion of Western India. The descriptions in the following pages will serve to verify these conclusions.

The course taken by cyclonic vortices, more especially such as often follow in rapid succession during the height of the monsoon, (see *ante* pages 23 and 76), are, it will be presently seen, among the more important causes which immediately affect the rainfall distribution. A reference to the Plates XXII to XXVI in Vol. II of these Memoirs, illustrating Mr. Eliot's paper on these storms, will show that, in certain years, they have a tendency to succeed one another in a particular zone, while they avoid other regions; and the same characteristic is further illustrated by the charts, which Mr. Eliot has since prepared, for other years dealt with in the following pages, and which will be shortly published in a separate memoir. I have made use of Mr. Eliot's work to a considerable extent in the present paper, and am greatly indebted to it. As his charts have already been published in part, and the remainder will shortly be equally available for reference, it is unnecessary for me here, to do more than notice them briefly, and in so far as bears on my own subject-matter. I shall have occasion to point out in the sequel that, in some particulars, there is an obvious connection between these courses and the baric isabnormals—a connection which, I am inclined to conclude, rather indicates a dependence of the storm track on a quasi-persistent distribution of pressure, than merely a modification of the average pressure distribution by the passage of the barometric depression accompanying the storm.

*The year 1875.*—The data for 1875 are less complete than could be desired. It appears that there was a good deal of rain in February in Upper India. But March and April were very dry and hot months; especially the latter. In the latter part of May, there was much rain on the North-West Himalaya and the plains at their foot, and more than usual in Western Bengal, Behar, and Orissa. The rains set in, in Bengal, about the 11th June and reached the North-West Provinces and the Punjab in the first week in July. In the Central Provinces, there was very heavy rain in June, producing a destructive flood; while rain was withheld from the Gangetic plain above Behar. The former of these was probably the effect of a cyclonic storm passing across the Central Provinces or Central India. In July also, there was but little general rain in the North-West Provinces, but some very heavy local falls in the last week, producing extensive floods. In Behar and Northern Bengal and Assam, also, there was but little rain; whereas in the Central Provinces, Orissa, Chutia Nagpur, and the maritime part of the Gangetic delta, the fall was considerably in excess of the average; and this was also the case in the Deccan and on the Western Ghats, and in Sind.

This distribution is precisely that which is caused by the passage of cyclonic storms from the coast of Orissa or Bengal, westward across the country; and the heavy rain, in Sind, seems to indicate that one of these storms must have traversed the whole of India to the delta of the Indus.

In August, there were some heavy local falls in the Punjab in the first half of the month; and in most parts of the North-Western Provinces, there was more than the average rainfall; also in Behar, Bengal, (except the sub-Himalayan districts), Assam and Orissa. In Bombay, however, and the Central Provinces, the rainfall was somewhat deficient.

September again was characterized by very heavy local falls of rain; in the earlier part of the month in the eastern districts of the Punjab; and in the middle of the month, in Central and Southern Rajputana; in both cases giving rise to more or less destructive floods, which, in the latter case, submerged a large part of the city of Ahmedabad. As in the previous month, the rainfall greatly exceeded the average in the western part of the Gangetic plain and in Orissa; and it was also somewhat excessive in the Central Provinces, and most parts of the Bombay Presidency. As in July, so in this month, this distribution was in all probability due to the general westerly course of cyclonic storms. One also must have reached the Meerut division and the Eastern Punjab, and the floods of the Subormati were probably due to a similar cause operating in Rajputana.

October was almost rainless in the North-Western Provinces and Behar; but, in Bengal, there was a fall in the latter part of the month. The fall was exceptionally heavy in Orissa, and abundant in Madras; and in this province, rain continued up to the end of the year.

As the general result, the rainfall of the year was excessive in the Punjab and Rajputana, in both which provinces it was the highest recorded during the 20 years. It was also much above the average on the North-West Himalaya, in the eastern and central states of Central India and the North-West Provinces. It was also largely (13 or 14 per cent.) in excess in the Central Provinces, Berar and Khandesh, Guzerat and the Konkan.

On the other hand, it was very deficient in Lower Bengal, and especially the northern districts, and in parts of Behar and the northern half of Western Bengal. In Malabar it was 12 per cent. below the average, 15 per cent. in the Carnatic, and 20 per cent. in Mysore and Bellary. In the Burmese peninsula there was a considerable excess, especially in Arakan and Tenasserim.

The most striking anomaly of the year was the excessive rainfall in the Punjab and Rajputana. This was due almost entirely to the precipitation of August and September. The weather changes of the year have not been worked out, in the same detailed manner, in current records, as have been those of the later years, but there can be little question that this excessive local precipitation was due to the passage of cyclonic storms to North-Western India, or, perhaps, to their formation in Central India or over the western plains, and that these caused a concentration of the rainfall on their northern and eastern quadrants. The other provinces with an excessive rainfall, *viz.*, the Central Provinces south of the Satpuras, Berar, Khandesh and Guzerat, are also those that would receive a heavy precipitation from storms following the usual westerly track across India; and Central India would share it, though perhaps in a minor degree. The almost equally high rainfall of the Konkan would be explained, in like manner, as the result of the strong saturated current which fed the storm from the west and south-west. The deficiency in the northern districts of Bengal, Northern Behar, &c., is a well-known concomitant of the frequent passage of storms across the Orissa coast, on a westerly track; and Mysore suffers when the western branch of the monsoon is steadily directed across the Konkan.

*The year 1876.*—This year has achieved a disastrous notoriety, as that, in which, the wide-spread failure of the rains gave rise to the last great Indian famine; and it is therefore a year of more than ordinary interest in connection with the present discussion.

Except on the North-West Himalaya, and chiefly between March and May, at a few stations along their foot, the first months of the year were generally dry. On the plains of the North-West Provinces, and a large part of the Punjab, there was little or no rain in January or February; and in the former, only slight and infrequent showers from March to May. On the Punjab plains, any fall in January was slight, and restricted to the vicinity of the hills; and that of February but little less so; in both months almost everywhere below the average; but that of March was about equal to it, and, except in the extreme south and west of the province, that of April was excessive, and especially so on the hills. In May, the rainfall on the North-West Himalaya was about of the usual amount.

In Rajputana there was very little rain before May, and even then no general rain. Berar, the Central Provinces, and the peninsular districts of Bombay, excepting Dharwar, were almost absolutely rainless during the first five months; and in Madras, except locally, there was less than the usual amount. In Bengal and Assam there was no rain in January, and very little in February. In March and April, the deficiency was only partial, and in May there was more than an average fall in the eastern and northern districts.

The winter rainfall of Northern India failed therefore almost completely, but the spring precipitation on the North-West Himalaya was on the whole equal to an average fall, though not so on the plains.

As is usually the case in dry seasons, the temperature of the first five months was high in nearly all parts of India, the only notable exceptions being in the Punjab and part of the North-West Provinces, in March and April, and partially in February. These variations seem to have depended on the rainfall, the exceptions to the prevailing high temperature being also exceptions to the prevailing drought.

The atmospheric pressure, as compared with the average of ten years, was more or less deficient, in nearly all parts of India, during the first five months, and most so in January and February in the Eastern Punjab, the North-Western Provinces and Bengal. In the west and south it was much less so from January to March inclusive. The number of stations, yielding comparable registers for this year, are unfortunately but few. Such as remain, after rejection of those that are more or less doubtful, are summarized in the following table, and the distributions of the anomalous features of the pressure are shown for March, April, and May, on Plate XIII:—

*Geographical summary of pressure anomalies (in decimals of a barometric inch) in the five months January to May 1876.*

| | Stations. | January. | February. | March. | April. | May. |
|---|---|---|---|---|---|---|
| North-West Himalaya | 1 | —·055 | —·021 | —·041 | —·017 | —·012 |
| Sikkim Himalaya | 1 | —·047 | —·043 | —·036 | —·033 | —·018 |
| Punjab Plains | 4—7 | —·045 | —·027 | —·014 | —·027 | —·023 |
| Gangetic Plains | 10—11 | —·057 | —·057 | —·025 | —·030 | —·028 |
| Sind and Guzerat | 2 | —·020 | —·013 | —·012 | —·031 | —·0. 6 |
| Eastern Rajputana and Central India plateau | 2 | —·037 | —·027 | —·020 | —·027 | —·020 |
| Nerbudda valley | 3 | —·012 | —·007 | —·013 | —·040 | —·014 |

*Geographical summary of pressure anomalies (in decimals of a barometric inch) in the five months January to May 1876*—continued.

| | Stations. | January. | February. | March. | April. | May. |
|---|---|---|---|---|---|---|
| Chutia Nagpur | 1 | —·049 | —·041 | —·024 | —·033 | —·029 |
| Lower Bengal | 6 | —·056 | —·054 | —·035 | —·039 | —·026 |
| Assam and Cachar | 3 | —·048 | —·044 | —·044 | —·032 | —·001 |
| Orissa | 2 | —·040 | —·045 | —·037 | —·039 | —·021 |
| Central Provinces South and Berar | 3—4 | —·031 | —·025 | —·029 | —·045 | —·025 |
| Konkan | 1 | —·020 | —·012 | —·006 | —·036 | +·011 |
| Malabar | 1 | —·024 | —·004 | —·012 | —·023 | +·017 |
| Deccan and Mysore | 3 | —·019 | —·011 | —·021 | —·036 | +·007 |
| East Coast and Carnatic | 3—4 | —·025 | —·018 | —·039 | —·048 | —·019 |
| Ceylon | 7 | —·028 | —·014 | —·019 | —·071 | —·003 |

In the spring months, amid several oscillations, the prevailing deficiency of pressure diminished, but it continued greater in the east than in the west; and in May, the general fall being less than usual, the pressure became above the average in the western half of the Peninsula, and but little below it in Sind, Guzerat, and on the North-West Himalaya (as well as in Assam); while the greatest abnormal depression was in the Gangetic plains, the Central Provinces, Chutia Nagpur, Orissa, and Lower Bengal.

The differences are not indeed large; but in India, even small variations of pressure, if lasting, are very significant of important variations in the meteorological features of the country. And such is the case here. On Plate XIII are given the pressure charts for the four months March to June 1876, drawn up according to the same method and on the same scale as the charts of average pressure on Plate IV. On comparing the two, it may be noticed that, while on the 1876 charts, up to May, the isobars of low values enclose larger areas than the corresponding isobars in the average charts, indicating a less than average pressure in the former, the area of minimum pressure is chiefly, or entirely, restricted to the eastern half of India; and in both April and May, the barometric gradient from the west coast of the Peninsula towards the interior, as indicated by the approximation of the isobars, from 29·75 to 29·65 in April, and 29·65 in May, is much deeper than in the average charts on Plate IV. The baric isabnormals, represented by green lines, show these differences in a more direct and graphic manner.

The relative excess of pressure, thus shown in Western India, is obviously such as might be expected to co-exist with an undue prevalence of northerly or north-westerly winds, the winds already noticed, at page 96, as being those normally prevailing in the spring months in Western India; but, like all the normal features of the local meteorology, subject to a certain amount of variation.

In the following table (A), is given, in the form of a percentage, the winds of the three spring months March, April, and May, at Kurrachee and Deesa, illustrative of Sind and Guzerat; at Delhi, Agra and Benares, illustrating the Gangetic plain; at Seoni and Pachmarhi for the Satpura range; Amraoti and Akola for the plain of Berar; Bombay for the Konkan; Poona and Belgaum for the Western Deccan; Secunderabad and Bellary for

the central and eastern portion of the plateau; Masulipatam and False Point for the east coast of the Peninsula; and Cuttack and Hazaribagh for the interior. These stations have been selected, as affording the best, or, in some cases, the only available comparative data. Other stations, which it might have been desirable to add, such as Pachpadra, Sutna, Sholapur, &c., were not established as observatories in the earlier part of 1876.

In a subsequent table (B), these data, reduced to their cardinal components, have been compared with the average wind directions of the same months, reduced in like manner, and the differences tabulated under the four cardinal points. The averages which serve as standards of comparison are in most cases those of the ten years 1875—1884, but those of Poona and Belgaum are derived from the registers of 17 years ending with 1872.

At these stations the conditions of the wind registration have been so changed since 1876 that the later years' registers are hardly comparable with the earlier.

TABLE A.—*Winds in the spring months of 1876 reduced to percentages and the same reduced to four cardinal components.*

| Months. | Wind components. | Kurrachee. | Deesa. | Delhi. | Agra. | Bearees. | Seoni. | Pachmarhi. | Amraoti. | Akola. | Poona. | Bombay. | Belgaum. | Secunderabad. | Bellary. | Masulipatam. | False Point. | Cuttack. | Hazaribagh. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March | N | 2 | 5 | 5 | 8 | 1 | 2 | 10 | 26 | 0 | 45 | 21 | 5 | 10 | 21 | 0 | 1 | 5 | 1 |
| | NE | 10 | 5 | 5 | 8 | 8 | 21 | 5 | 10 | 0 | 5 | 11 | 22 | 14 | 11 | 0 | 2 | 13 | 3 |
| | E | 2 | 3 | 2 | 6 | 0 | 1 | 0 | 3 | 8 | 5 | 4 | 16 | 7 | 7 | 0 | 4 | 6 | 10 |
| | SE | 2 | 5 | 5 | 6 | 2 | 10 | 6 | 1 | 0 | 2 | 2 | 5 | 16 | 19 | 35 | 7 | 7 | 2 |
| | S | 2 | 3 | 8 | 10 | 5 | 0 | 3 | 2 | 2 | 3 | 3 | 5 | 3 | 5 | 47 | 11 | 24 | 0 |
| | SW | 40 | 8 | 9 | 5 | 7 | 26 | 8 | 3 | 6 | 6 | 2 | 8 | 3 | 10 | 18 | 59 | 29 | 2 |
| | W | 35 | 50 | 32 | 21 | 62 | 0 | 18 | 21 | 13 | 21 | 8 | 32 | 24 | 6 | 0 | 11 | 5 | 24 |
| | NW | 2 | 21 | 34 | 35 | 15 | 40 | 50 | 34 | 71 | 13 | 48 | 7 | 23 | 21 | 0 | 4 | 6 | 58 |
| | Calm | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 |
| | N Comp. | 11 | 23 | 32 | 38 | 17 | 45 | 49 | 57 | 50 | 58 | 62 | 25 | 36 | 43 | 0 | 5 | 18 | 44 |
| | S " | 32 | 12 | 18 | 18 | 11 | 25 | 13 | 5 | 6 | 9 | 6 | 14 | 16 | 25 | 84 | 57 | 49 | 3 |
| | E " | 11 | 10 | 9 | 16 | 7 | 23 | 8 | 11 | 8 | 10 | 13 | 35 | 28 | 28 | 24 | 10 | 20 | 14 |
| | W " | 65 | 70 | 62 | 49 | 77 | 46 | 59 | 47 | 67 | 34 | 43 | 42 | 42 | 28 | 12 | 55 | 30 | 66 |
| April | N | 8 | 8 | 15 | 8 | 7 | 0 | 23 | 20 | 0 | 37 | 8 | 8 | 0 | 5 | 0 | 0 | 0 | 2 |
| | NE | 3 | 10 | 2 | 3 | 8 | 37 | 12 | 12 | 7 | 2 | 2 | 15 | 12 | 8 | 0 | 0 | 7 | 3 |
| | E | 2 | 2 | 0 | 0 | 1 | 5 | 2 | 3 | 5 | 0 | 1 | 2 | 12 | 10 | 0 | 0 | 2 | 1 |
| | SE | 2 | 2 | 17 | 8 | 3 | 5 | 13 | 8 | 0 | 3 | 5 | 3 | 3 | 17 | 6 | 5 | 13 | 7 |
| | S | 0 | 2 | 0 | 8 | 2 | 0 | 3 | 0 | 3 | 0 | 11 | 3 | 5 | 8 | 62 | 6 | 40 | 5 |
| | SW | 50 | 13 | 5 | 3 | 7 | 25 | 2 | 8 | 7 | 2 | 7 | 5 | 23 | 15 | 32 | 85 | 32 | 5 |
| | W | 25 | 33 | 12 | 19 | 47 | 0 | 12 | 13 | 10 | 23 | 21 | 60 | 37 | 18 | 0 | 2 | 2 | 25 |
| | NW | 10 | 30 | 48 | 45 | 25 | 28 | 33 | 35 | 68 | 33 | 43 | 3 | 8 | 18 | 0 | 0 | 3 | 52 |
| | Calm | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 1 | 0 |

*Winds in the spring months of 1876 reduced to percentages and the same reduced to four cardinal components*—concluded.

| Months. | Wind components. | Kurrachee. | Deesa. | Delhi. | Agra. | Benares. | Seoni. | Pachmarhi. | Amraoti. | Akola. | Poona. | Bombay. | Belgaum. | Secunderabad. | Bellary. | Masulipatam. | False Point. | Cuttack. | Hazaribagh. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| April -contd. | N Comp. | 17 | 36 | 50 | 41 | 30 | 46 | 55 | 53 | 52 | 62 | 39 | 20 | 14 | 23 | 6 | 0 | 7 | 41 |
| | S " | 37 | 13 | 15 | 15 | 9 | 21 | 13 | 11 | 8 | 3 | 20 | 9 | 23 | 31 | 89 | 69 | 72 | 13 |
| | E " | 5 | 10 | 13 | 8 | 8 | 34 | 19 | 17 | 10 | 4 | 6 | 14 | 23 | 27 | 4 | 4 | 16 | 8 |
| | W " | 67 | 63 | 49 | 53 | 69 | 37 | 37 | 43 | 63 | 48 | 56 | 66 | 59 | 41 | 23 | 61 | 27 | 65 |
| May | N | 1 | 0 | 16 | 5 | 5 | 0 | 16 | 19 | 0 | 22 | 1 | 5 | 1 | 3 | 2 | 2 | 1 | 2 |
| | NE | 0 | 0 | 24 | 10 | 23 | 13 | 3 | 8 | 2 | 1 | 0 | 3 | 3 | 0 | 3 | 0 | 5 | 8 |
| | E | 0 | 0 | 0 | 11 | 18 | 2 | 1 | 0 | 0 | 0 | 1 | 3 | 5 | 2 | 10 | 0 | 0 | 13 |
| | SE | 0 | 3 | 13 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 5 | 6 | 13 | 7 | 11 | 14 |
| | S | 10 | 31 | 5 | 8 | 8 | 0 | 2 | 0 | 0 | 1 | 7 | 0 | 5 | 2 | 42 | 41 | 48 | 5 |
| | SW | 60 | 35 | 14 | 6 | 1 | 14 | 3 | 5 | 5 | 0 | 30 | 5 | 18 | 10 | 14 | 38 | 31 | 10 |
| | W | 19 | 19 | 2 | 37 | 16 | 0 | 13 | 13 | 11 | 38 | 45 | 77 | 29 | 34 | 13 | 0 | 2 | 13 |
| | NW | 10 | 11 | 26 | 21 | 29 | 69 | 60 | 53 | 82 | 38 | 14 | 7 | 34 | 43 | 3 | 4 | 0 | 35 |
| | Calm | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 0 |
| | N Comp. | 8 | 8 | 51 | 27 | 42 | 57 | 60 | 62 | 59 | 49 | 11 | 12 | 27 | 33 | 6 | 5 | 4 | 32 |
| | S " | 52 | 57 | 24 | 13 | 9 | 11 | 6 | 5 | 4 | 1 | 29 | 3 | 21 | 13 | 61 | 72 | 78 | 21 |
| | E " | 0 | 2 | 26 | 20 | 34 | 13 | 4 | 7 | 1 | 1 | 3 | 5 | 10 | 6 | 21 | 5 | 11 | 29 |
| | W " | 68 | 51 | 30 | 55 | 37 | 58 | 57 | 54 | 72 | 65 | 76 | 85 | 66 | 71 | 25 | 29 | 24 | 44 |

TABLE B.—*Differences of the above table and the corresponding averages (1876 minus average) reduced to four cardinal points.*

| Months. | Wind Components. | Kurrachee. | Deesa. | Delhi. | Agra. | Benares. | Seoni. | Pachmarhi. | Amraoti. | Akola. | Poona. | Bombay. | Belgaum. | Secunderabad. | Bellary. | Masulipatam. | False Point. | Cuttack. | Hazaribagh. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March. | N | — 2 | — 8 | — 6 | +13 | + 4 | + 8 | + 8 | +31 | + 9 | +13 | + 7 | + 5 | +18 | +22 | — 1 | — 4 | + 4 | +14 |
| | S | — 4 | — 6 | + 3 | + 3 | — 4 | — 5 | — 5 | —23 | 0 | — 5 | — 3 | — 7 | —12 | —15 | + 8 | + 6 | — 6 | —15 |
| | E | + 4 | — 5 | — 4 | + 1 | — 3 | 0 | — 7 | —10 | — 5 | — 7 | — 4 | + 4 | —19 | — 9 | —15 | 0 | + 3 | + 5 |
| | W | — 1 | +21 | + 8 | — 7 | +11 | + 4 | +13 | + 1 | +22 | —10 | + 3 | + 3 | +17 | + 1 | + 7 | + 2 | — 1 | 0 |
| April. | N | +10 | +12 | +15 | +21 | +13 | + 9 | + 9 | +15 | + 9 | + 9 | — 8 | 0 | — 2 | 0 | — 1 | — 4 | — 2 | +10 |
| | S | — 6 | —11 | — 2 | — 3 | — 1 | — 6 | — 1 | — 8 | + 2 | — 9 | + 6 | —13 | — 5 | — 2 | + 5 | + 8 | + 7 | — 8 |
| | E | + 2 | + 4 | — 2 | — 1 | — 4 | +16 | + 6 | + 1 | + 4 | —10 | — 5 | + 8 | —13 | — 1 | — 9 | 0 | + 8 | + 1 |
| | W | — 6 | + 4 | — 5 | —10 | + 5 | —11 | —10 | — 6 | +13 | + 7 | + 4 | +19 | +22 | + 1 | + 5 | + 1 | — 9 | + 1 |
| May. | N | + 4 | + 3 | +17 | + 2 | +11 | +14 | +10 | +16 | + 9 | + 2 | —17 | + 3 | — 3 | + 4 | 0 | + 2 | — 8 | + 3 |
| | S | + 6 | + 8 | — 1 | — 3 | + 3 | —10 | — 5 | — 8 | + 1 | — 8 | +10 | —13 | + 2 | — 3 | — 4 | + 9 | +23 | — 9 |
| | E | 0 | + 1 | — 2 | — 1 | + 5 | — 2 | — 4 | — 6 | — 2 | — 4 | — 1 | 0 | — 7 | — 2 | +10 | — 1 | — 1 | + 5 |
| | W | — 6 | —12 | — 8 | + 4 | — 2 | + 4 | + 3 | + 1 | +10 | + 6 | + 6 | + 7 | + 9 | + 3 | — 8 | —20 | —13 | + 3 |

In the second table the undue prevalence of northerly elements in all months is sufficiently obvious, and that of westerly elements only less so. But it shows that, in certain regions, there are very notable exceptions to this rule. At Kurrachee Deesa, and Delhi there is no unusual excess of northerly elements in March nor at Kurrachee of westerly, and the latter were deficient at Kurrachee, Delhi, Agra, Seoni, Pachmarhi, and some other stations in April, and at several in May. At Bombay, except in March, it is south and west, and not northerly elements, that are in unusual excess; the same as at Masulipatam and False Point in March and April, and at Secunderabad in May. Thus it was in Central India and Western India above the Ghâts, more especially, that north-west winds held sway steadily, and in unusual excess throughout; and this, always a dry region at this season, was almost absolutely rainless in the first five months of 1876.

Such being the meteorological conditions of India, during the spring months, which precede the rainy season, it now remains to describe this latter.

The following is a comparative table of the rainfall of the several rainfall provinces, in each of the months, June to December 1876:—

*Table of the monthly mean rainfall of each rainfall province from June to December 1876 and its difference from the normal average.*

| Provinces. | No. of stations. | June. | | July. | | August. | | September. | | October. | | November. | | December. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mean 1876. | Difference. | Mean 1876. | Difference. | Mean 1876. | Difference. | Mean 1876. | Difference. | Mean 1876. | Difference. | Mean 1876. | Difference. | Mean 1876. | Difference. |
| I. Western Himalaya | 26 | 1·6 | −4·8 | 21·0 | +3·3 | 23·4 | +7·6 | 6·5 | −0·5 | 2·0 | +1·0 | 0·2 | −0·2 | *Nil* | −1·1 |
| II. Punjab Plains | 29 | 1·1 | −0·8 | 9·3 | +3·0 | 3·3 | −1·7 | 1·9 | −0·6 | 1·3 | +0·9 | 0·4 | +0·· | 0·1 | −0·5 |
| III. N.-W. Provinces and Oudh | 45 | 1·0 | −3·5 | 11·8 | +0·3 | 6·8 | −2·3 | 7·5 | +1·2 | 2·0 | +0·7 | *Nil* | −0·1 | *Nil* | −0·2 |
| IV. Rajputana (*a* Eastern Division) | 18 | 1·3 | −1·6 | 12·7 | +2·7 | 5·5 | −3·0 | 9·0 | +3·6 | 0·3 | −0·4 | 0·1 | 0 | *Nil* | −0·2 |
| Do. (*b* Western Division | 1 | 0·6 | −0·2 | 4·7 | +1·2 | 7·9 | +2·7 | 10·6 | +8·1 | *Nil* | −0·3 | *Nil* | −0·1 | *Nil* | 0 |
| V. Central India States | 21 | 2·5 | −3·4 | 23·0 | +8·9 | 10·8 | 0 | 9·7 | +2·1 | 0·2 | −0·9 | *Nil* | −1·8 | *Nil* | −1·8 |
| VI. Behar | 14 | 3·7 | −3·2 | 7·9 | −3·7 | 13·5 | +3·0 | 10·9 | +3·1 | 5·1 | +1·9 | *Nil* | −0·2 | *Nil* | −0·1 |
| VII. Western Bengal | 10 | 8·9 | +1·1 | 16·2 | +3·9 | 15·9 | +3·3 | 6·8 | −1·2 | 5·2 | +1·7 | *Nil* | −0·3 | *Nil* | −0·2 |
| VIII. Lower Bengal | 28 | 13·5 | +0·5 | 12·3 | −0·9 | 10·6 | −2·1 | 9·6 | −0·8 | 5·3 | +0·4 | 0·7 | +0·3 | *Nil* | −0·2 |
| IX. Eastern Himalaya | 7 | 38·4 | +7·7 | 26·9 | −3·3 | 19·3 | −7·8 | 15·5 | −5·2 | 6·3 | +0·4 | 0·2 | 0 | ·0·1 | −0·1 |
| X. Assam and Eastern Bengal | 17 | 24·8 | +3·9 | 19·3 | −0·3 | 15·7 | −1·9 | 10·5 | −3·3 | 5·6 | 0 | 2·0 | +1·1 | 0·1 | −0·3 |
| XI. Orissa and Northern Circars | 16 | 6·1 | −0·1 | 8·3 | +0·1 | 9·5 | +1·2 | 7·9 | −0·7 | 8·2 | +0·5 | 0·2 | −1·9 | *Nil* | −0·7 |
| XII. Central Provinces, South | 19 | 4·0 | −4·7 | 16·3 | +0·7 | 10·7 | −0·9 | 11·5 | +3·0 | 0·5 | −1·4 | *Nil* | −0·4 | *Nil* | −0·2 |
| XIII. Berar and Khandesh | 13 | 4·3 | −2·5 | 8·1 | −0·7 | 8·7 | +1·0 | 4·5 | −2·2 | 0·3 | −1·9 | *Nil* | −0·5 | *Nil* | −0·3 |
| XIV. Guzerat | 13 | 1·7 | −2·7 | 12·2 | −0·1 | 9·9 | +1·4 | 5·9 | −0·1 | *Nil* | −0·9 | *Nil* | −0·1 | *Nil* | −0·1 |
| XV. Sind and Cutch | 10 | 0·1 | −0·6 | 4·6 | +1·7 | 3·0 | +0·2 | 0·5 | −0·5 | *Nil* | −0·2 | 0·1 | +0·1 | *Nil* | −0·1 |
| XVI. North Deccan | 14 | 3·3 | −1·9 | 7·5 | +1·7 | 1·8 | −3·0 | 1·3 | −3·3 | 0·5 | −4·1 | 0·1 | −1·0 | *Nil* | −0·3 |
| XVII. Konkan and Ghâts | 12 | 21·9 | −12·9 | 60·5 | +7·1 | 26·7 | −7·6 | 9·7 | −9·8 | *Nil* | −4·6 | *Nil* | −0·9 | *Nil* | −0·1 |
| XVIII. Malabar and Ghâts | 8 | 24·1 | −7·5 | 40·3 | +7·6 | 14·9 | −2·4 | 6·6 | −2·8 | 1·9 | −6·0 | 0·7 | −2·3 | *Nil* | −1·0 |
| XIX. Hyderabad | 19 | 3·0 | −1·8 | 4·8 | −1·0 | 5·0 | −2·2 | 3·3 | −3·5 | 0·2 | −2·8 | 0·1 | −0·9 | *Nil* | −0·1 |
| XX. Mysore and Bellary | 18 | 2·3 | −0·9 | 2·5 | −1·2 | 3·3 | −1·2 | 2·0 | −2·9 | 0·5 | −5·2 | 0 2 | −1·7 | *Nil* | −0·4 |
| XXI. Carnatic | 38 | 1·9 | 0 | 2·1 | −0·4 | 4·3 | +0·1 | 2·5 | −1·8 | 1·5 | −5·6 | 3·5 | −3·4 | 1·6 | −1·2 |
| XXII. Arakan | 6 | 24·9 | −12·3 | 47·7 | +7·8 | 21·6 | −9·8 | 17·3 | −1·3 | 4·2 | −4·9 | 5·8 | +3·2 | *Nil* | −0·5 |
| XXIII. Pegu | 7 | 10·1 | − 3·3 | 20·1 | +4·2 | 10·3 | −4·6 | 13·6 | +2·1 | 2·8 | −3·6 | 4·2 | +1·6 | *Nil* | −0·1 |
| XXIV. Tenasserim | 4 | 26·4 | −8·1 | 46·5 | +8·2 | 28·1 | −7·9 | 26·4 | −1·4 | 6·2 | −4·5 | 1·8 | −0·5 | 0·6 | +0·4 |
| XXV. Bay Islands | 2 | 14·8 | −1·1 | 32·7 | −1·8 | 10·3 | −2·9 | 11·7 | −3·3 | 18·8 | +5·7 | 14·6 | +4·1 | 9·5 | +1·0 |

In Bengal, the rains set in rather earlier than the average date, *viz.*, in the latter part of the first week of June; and in Behar, rain became general at the end of the third week; at the same time, a general fall took place in the Punjab, but this did not continue, and the latter part of the month was rainless. The rainfall of the month was greatly below the average throughout North-West India, including the Himalaya, and especially on the plains of the North-West Provinces and Behar; to some extent also in parts of Bengal, but in Sikkim, Assam, and Eastern Bengal, there was a certain excess. In the Central Provinces it was very deficient, less than half an average fall. In Bombay, except Khandesh, a deficiency was universal, and the northern districts were almost rainless. On the Konkan and Ghâts, as well as in the Deccan, there was less than two-thirds the usual amount.

The rainfall of July was less generally deficient, and in some parts of Northern India and on the west coast, it exceeded the average of the month. In the Punjab it was well distributed, and on the North-Western Himalaya, at some stations in the middle of the province, excessive; and this was also the case in some of the western districts of the North-West Provinces, and, especially in the southernmost districts, on the Central India plateau, as well as in Rajputana, Central India, and the northern districts of the Central Provinces. But in Oudh, Northern Behar, and Northern Bengal, the fall was still very deficient; while on the hilly country to the south of the Ganges and in the Gangetic delta, it exceeded the average. This distribution is that which usually characterizes the passage of cyclonic vortices from the Orissa coast to Central India, and thence to the Punjab. In the South Konkan, the rainfall was deficient on parts of the coast, but excessive on the Ghâts of the Northern Konkan. Again, under the lee of the Ghâts, there was a very general deficiency; small absolutely, but proportionally large and serious in this zone of normally low rainfall. This deficiency extended to Mysore in the south, and to Hyderabad and the ceded districts of Madras, where indeed any rainfall was insignificant. On the plains of the Carnatic, there were tracts in which the fall was very deficient, and others in which there was an average, or somewhat more.

In August, the rainfall on the North-West Himalaya was very excessive, but on the Punjab plains, except in the Derajat, it was more or less deficient, and in the south-eastern districts, bordering on Rajputana, there was no rain. In the North-West Provinces, there was not more than half, or two-thirds, the normal average; but in Behar, the adjoining districts of Lower Bengal and Chutia Nagpur, there was more or less excess; especially in Bhagalpore. On the other hand, in Sikkim and Northern Bengal, and most parts of Assam, there was a deficiency. In the Central Provinces South and Berar, there was a good average or rather more, and at some stations in Guzerat. But in the South Deccan, there was scarcely any rain, and a great deficiency in the northern and eastern part of the plateau, in the ceded districts and Mysore, as well as in the Konkan below the Ghâts. In the Carnatic, the deficiency was less marked, except in Tinnevelly, where there was no rain.

In September, the rains did not cease in the Punjab before the usual date, but they were light, except in the eastern districts and on the hills. In Rajputana, there was more than the usual amount; and in the North-Western Provinces, there was a certain excess in some of the western and southern districts, and only a partial deficiency in Rohilkand and Oudh. In Behar, there was more than an average fall, and an average in the deltaic districts; but in Northern Bengal, Assam, and Cachar a deficient fall. In the Central Provinces, especially the eastern districts, there was an excess; and heavy floods were

produced in the Kanhan, a tributary of the Waingunga, and also in the Tapti and Nerbudda; the effects of heavy falls accompanying the passage of one or more cyclonic vortices. In Bombay, however, excepting Guzerat, the rainfall was light, and in the Deccan insignificant: and the same in Hyderabad, the ceded districts of Madras, and Mysore. It was very deficient also in the Carnatic, especially the southern half of the province, and in Ceylon.

October and November are usually rainless, or nearly so, in North-Western India, and are the season of heavy rain in the Carnatic; but in 1876, several considerable falls took place in the Punjab, in October, in nearly all parts of the Province, and in November, in the northern and western districts. In the former month also, many parts of the North-Western Provinces had a considerable and unusual fall of rain. In Bengal, the distribution of the October rainfall was very irregular; it was excessive in Behar and Western Bengal; and in November, the eastern districts were swept by the disastrous cyclone of Backergunge. In the Central Provinces, there was little or no rain; and none in Bombay of any importance. In Madras, the Northern Circars were visited by a severe cyclone in October, but the ceded districts and Mysore had no rain; and, in the Carnatic, the autumnal rains failed completely, the total fall of October varying from half to three inches only; and that of November, except at two or three stations on the coast, being equally deficient. December was rainless, or nearly so, in the Carnatic to the north of the Cavery. But in the south-east of the Bay, at Port Blair, and Nancowry, the rainfall was excessive in the three last months of the year.

From the above description, it seems highly probable that, in the summer monsoon of 1876, the irregularities of the rainfall in Northern India were, in a great measure, determined by the passage of successive cyclonic storms of the monsoon type, (shallow barometric depressions with moderate winds,) across Central India; some of them apparently reaching the Punjab, while one, at least, crossed to the neighbourhood of the Gulf of Cambay, producing heavy floods in the Tapti and Nerbudda, and one passed over Behar. The characteristic effect of such storms is that a heavy, (locally excessive,) rainfall is produced over a limited area, on and near the track; while it is either light or entirely withheld from the zone beyond 100 or 200 miles to the north of the central track. Thus, when the rainfall is remarkably heavy in Orissa, Chutia Nagpur, and the Central Provinces, but little reaches Northern Bengal and the Gangetic plain. If a storm, instead of travelling westward to Guzerat, turns off towards Rohilkand or the Punjab, then these provinces share the high rainfall; and this appears to have been the case, on more than one occasion, in 1876. If, however, instead of following a westerly course from the Bay of Bengal, the vortex travels to the north-west towards Behar, this province in like manner becomes for a time the seat of the concentrated precipitation. In the monsoon of 1876, except when concentrated along these storm tracks, the rainfall was everywhere light.

I now turn to the consideration of other meteorological elements, in the summer and later months of the year. It is hardly necessary to notice, at any length, the peculiarities of the temperature, since it has been amply demonstrated, by the experience of the last ten years, that, as the fall of temperature that follows on the burst of the monsoon is due to the cooling effect of rain and cloud, so all variations from the average condition depend almost entirely on the copiousness or scantiness of the fall; being above the average if the rainfall is very deficient, and *vice versâ*.

In 1876, the temperature of June was remarkably high almost everywhere in India; and, except in Bengal and at some of the Punjab stations, that of July also. August was rather a cool month in Northern India, and about an average month in the Peninsula. September was rather cooler than August in the north, but with a somewhat excessive temperature in the Peninsula; and both these forms of anomaly were further exaggerated in October, (an unusually rainy month in many parts of Northern India, and of disastrous drought in the Deccan and Carnatic). On the North-West Himalaya, the temperature was 5° or 6° below the average, and on the plains of Northern India between 2° and 3°. But in Southern India, the excess was equally great. In November, similar conditions continued in both regions, but in a less marked degree; and December was everywhere rather cool.

The distribution of pressure, and also of its anomalies, in each of the five months of the monsoon of this year, is shown in Plates X and XI; and the amount of the latter in different parts of India, both in these months and in November and December, the final months of the Carnatic rains, are given in the following table:—

*Geographical summary of monthly pressure anomalies from June to December 1876.*

| Provinces. | Stations. | Anomalies in decimals of an inch. | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | June. | July. | August. | September. | October. | November. | December. |
| North-West Himalaya | 1 | +·021 | —·038 | +·001 | +·007 | +·003 | —·002 | +·047 |
| Sikkim Himalaya | 1 | —·006 | —·037 | +·011 | +·027 | +·028 | +·002 | +·039 |
| Punjab Plains | 7—8 | +·018 | —·047 | +·011 | +·025 | +·046 | —·010 | +·028 |
| Gangetic Plains | 12—13 | —·002 | —·050 | +·010 | +·015 | +·046 | —·014 | +·035 |
| Sind and Guzerat | 2—3 | +·024 | —·042 | +·011 | +·030 | +·045 | +·001 | +·014 |
| Eastern Rajputana and Central India | 2—3 | +·016 | —·039 | +·015 | +·015 | +·045 | +·006 | +·043 |
| Nerbudda Valley | 3 | +·012 | —·036 | +·021 | +·006 | +·032 | +·006 | +·031 |
| Chutia Nagpur | 1 | +·010 | —·067 | +·012 | +·008 | +·032 | —·016 | +·028 |
| Lower Bengal | 6 | +·014 | —·044 | —·002 | +·008 | +·040 | —·012 | +·045 |
| Assam and Cachar | 3 | +·008 | —·026 | —·012 | +·011 | +·058 | —·007 | +·043 |
| Orissa | 2 | +·019 | —·037 | +·005 | +·004 | +·030 | —·005 | +·050 |
| Central Provinces South, &c. | 5—7 | —·002 | —·034 | —·004 | +·010 | +·030 | +·001 | +·037 |
| Konkan | 1 | +·011 | —·037 | +·012 | +·031 | +·041 | +·010 | +·020 |
| Malabar | 1 | +·002 | +·001 | +·015 | +·016 | +·007 | +·014 | +·029 |
| Deccan and Mysore | 4—5 | +·002 | —·022 | +·010 | +·022 | +·032 | +·003 | +·028 |
| East Coast and Carnatic | 6—7 | —·005 | —·024 | —·005 | +·004 | +·021 | +·014 | +·041 |
| Bay Islands | 2 | +·002 | 0 | —·003 | +·023 | +·023 | +·007 | +·041 |

It may be noticed in the first place that, whereas the general deficiency of pressure which had characterized the early months of the year had been steadily decreasing, and in May had disappeared in the west of the Peninsula, in June, save on the Gangetic plain, in

the Carnatic, and some parts of the Central Provinces, the pressure had become everywhere above the average; and most so on the North-West Himalaya and on the western plains; (in Sind and Guzerat). On the Punjab plain, the excess was only slightly less; and also in Rajputana, Orissa, and Lower Bengal. But it decreased steadily southward, and in the south of the Peninsula became evanescent. That this excess of pressure was due to the higher atmospheric strata, seems to follow from the facts; first, that it was as great at the higher level of the hill stations as on the plains, or even greater; and, secondly, that in general, owing to the high temperature, the density of the lower atmospheric strata and therefore their barometric equivalent was smaller than usual; and so excessive was this temperature in the North-West Provinces, the Central Provinces, and Berar that, as may be reasonably inferred, their exception to the prevailing excess of pressure arose from the low density of the lower strata more than neutralizing the excessive gravitation of the higher. The deficiency over the Sikkim Himalaya cannot, however, be thus explained.

In July, the excess of pressure temporarily disappeared, and, except on the Malabar coast, a deficiency was universal. It was apparently greatest in Chutia Nagpur, but was very considerable all over Northern India; less however on the hills than on the plains. In the south of India it was only about half as great as in the north, and was evanescent on the coast of Malabar. But in August an excessive pressure was re-established, except in Arakan, Lower Bengal, the Central Provinces and the Carnatic; became universal in September, and further intensified in October. In September it was much greater on the plains of the Punjab, Sind, and Rajputana, and in the Konkan, than in the eastern provinces, thus favouring north-westerly winds, as in the spring months; but in October it became equally excessive in Bengal, and greatest of all in Assam. On the North-West Himalaya, however, it was very small throughout, while over the Sikkim Himalaya it was as great as on the plains up to the end of September, and underwent no further increase in October. In Southern India, it was greater in Mysore than in the Carnatic, after July and up to the end of October; thus favouring north-western winds in Southern India to the exclusion of the usual rainfall from the Carnatic. In November, the excess nearly disappeared, except at the lower levels in Southern India. A very small excess was also outstanding in the west, while, in the east, a small deficiency was re-established, again favouring north-westerly winds; and finally, in December, the pressure rose to a higher abnormal excess than in any previous month, and was greatest on the North-West Himalaya, in Orissa, Bengal and Assam, Rajputana, Central India, and the Carnatic.

On comparing the isobaric charts of the five months, June to October, on Plates X and XI, with the corresponding normal charts on Plates IV and V, it may be observed that the south-westerly bend of the isobars in Western Rajputana and Guzerat, which is so marked a feature in the first three monsoon months of average years, and especially in July and August, is evanescent in the corresponding months of 1876; and that the meridianal tendency of the isobars in the Peninsula is much exaggerated in all the monsoon months of that year. It is however in October, usually the first month of the Carnatic rains, that this abnormal feature is most developed.

The following wind tables, from June to October, have been drawn up on the same plan as those of the spring months on pages 167, 168, and for the same stations; the first (A) giving the percentages of the eight observed wind directions in each month, and the

same reduced to their cardinal components; the second (B), the differences of these cardinal components from the corresponding averages of (in general) ten years:—

TABLE A.—*Wind directions in the summer monsoon months of 1876 reduced to percentages and the same reduced to four cardinal points.*

| Months. | Wind. | Kurrachee. | Deesa. | Sirsa. | Delhi. | Agra. | Benares. | Seoni. | Pachmarhi. | Amraoti. | Akola. | Poona. | Bombay. | Belgaum. | Secunderabad. | Bellary. | Masulipatam. | False Point. | Cuttack. | Hazaribagh. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JUNE. | N | 2 | 0 | 7 | 18 | 17 | 13 | 2 | 18 | 23 | 0 | 7 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 5 |
| | NE | 0 | 0 | 7 | 7 | 7 | 13 | 5 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 5 |
| | E | 0 | 0 | 3 | 0 | 3 | 13 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 3 |
| | SE | 0 | 7 | 8 | 3 | 7 | 5 | 5 | 2 | 0 | 0 | 0 | 8 | 0 | 2 | 2 | 5 | 3 | 5 | 8 |
| | S | 7 | 25 | 8 | 3 | 8 | 2 | 0 | 2 | 2 | 2 | 2 | 20 | 0 | 0 | 0 | 12 | 15 | 28 | 7 |
| | SW | 57 | 42 | 13 | 10 | 5 | 12 | 35 | 8 | 5 | 7 | 23 | 24 | 13 | 25 | 27 | 27 | 45 | 40 | 15 |
| | W | 33 | 20 | 33 | 7 | 27 | 32 | 3 | 30 | 8 | 30 | 48 | 36 | 85 | 53 | 53 | 45 | 27 | 18 | 22 |
| | NW | 1 | 6 | 20 | 52 | 25 | 10 | 50 | 40 | 58 | 61 | 20 | 10 | 0 | 20 | 13 | 7 | 3 | 3 | 32 |
| | Calm | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| | N comp. | 3 | 4 | 26 | 59 | 39 | 29 | 41 | 46 | 66 | 43 | 21 | 7 | 0 | 14 | 12 | 9 | 2 | 4 | 31 |
| | S " | 47 | 59 | 23 | 12 | 16 | 14 | 28 | 9 | 6 | 7 | 18 | 42 | 9 | 19 | 20 | 34 | 49 | 60 | 23 |
| | E " | 0 | 5 | 14 | 7 | 13 | 26 | 7 | 1 | 2 | 0 | 0 | 8 | 2 | 1 | 5 | 4 | 2 | 6 | 12 |
| | W " | 74 | 54 | 56 | 50 | 48 | 47 | 63 | 64 | 52 | 78 | 78 | 60 | 94 | 85 | 81 | 69 | 61 | 48 | 55 |
| JULY. | N | 0 | 0 | 2 | 6 | 5 | 7 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 5 |
| | NE | 0 | 1 | 0 | 11 | 7 | 13 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 10 |
| | E | 0 | 2 | 11 | 3 | 60 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 21 |
| | SE | 0 | 2 | 31 | 45 | 5 | 7 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 16 |
| | S | 2 | 19 | 24 | 2 | 3 | 7 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 11 | 6 |
| | SW | 58 | 63 | 19 | 15 | 5 | 13 | 71 | 0 | 2 | 18 | 31 | 39 | 0 | 86 | 21 | 36 | 65 | 53 | 14 |
| | W | 40 | 10 | 13 | 5 | 3 | 7 | 5 | 73 | 11 | 45 | 61 | 59 | 100 | 14 | 68 | 56 | 24 | 27 | 15 |
| | NW | 0 | 3 | 0 | 13 | 6 | 3 | 19 | 24 | 81 | 35 | 6 | 1 | 0 | 0 | 11 | 8 | 5 | 2 | 13 |
| | Calm. | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 |
| | N comp. | 0 | 3 | 2 | 23 | 14 | 18 | 14 | 17 | 63 | 25 | 4 | 1 | 0 | 0 | 8 | 6 | 6 | 3 | 21 |
| | S " | 43 | 65 | 59 | 44 | 10 | 21 | 53 | 3 | 1 | 15 | 24 | 28 | 0 | 60 | 15 | 25 | 47 | 50 | 27 |
| | E " | 0 | 4 | 33 | 42 | 68 | 57 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 39 |
| | W " | 81 | 56 | 26 | 25 | 11 | 18 | 68 | 90 | 69 | 82 | 87 | 87 | 100 | 74 | 90 | 87 | 73 | 66 | 34 |
| AUGUST. | N | 0 | 2 | 0 | 5 | 1 | 0 | 5 | 3 | 5 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 1 |
| | NE | 0 | 0 | 0 | 24 | 2 | 10 | 5 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 13 | 11 |
| | E | 0 | 0 | 13 | 0 | 31 | 35 | 5 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 11 | 24 |
| | SE | 0 | 0 | 14 | 19 | 16 | 0 | 11 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 8 | 13 |
| | S | 0 | 34 | 11 | 0 | 2 | 6 | 2 | 2 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 1 | 5 | 10 | 2 |
| | SW | 50 | 44 | 31 | 15 | 6 | 26 | 26 | 5 | 0 | 10 | 10 | 26 | 2 | 5 | 10 | 29 | 21 | 24 | 10 |

TABLE A.—*Wind directions in the summer monsoon months of 1876 reduced to percentages, and the same reduced to four cardinal points*—continued.

| Months. | Wind. | Karachee. | Leh. | Simla. | Delhi. | Agra. | Benares. | Seoni. | Pachmarhi. | Amraoti. | Aboo. | Poona. | Bombay. | Belgaum. | Secunderabad. | Bellary. | Masulipatam. | False Point. | Cuttack. | Hazaribagh. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AUGUST-*continued.* | W. | 47 | 14 | 31 | 8 | 37 | 23 | 1 | 48 | 13 | 63 | 68 | 70 | 95 | 48 | 58 | 60 | 31 | 26 | 26 |
| | NW | 3 | 6 | 0 | 29 | 2 | 0 | 45 | 26 | 79 | 27 | 12 | 4 | 3 | 47 | 32 | 8 | 7 | 6 | 13 |
| | Calm | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 |
| | N comp. | 2 | 6 | 0 | 42 | 4 | 7 | 40 | 23 | 61 | 19 | 10 | 3 | 2 | 33 | 22 | 8 | 7 | 15 | 18 |
| | S ,, | 35 | 65 | 43 | 24 | 17 | 24 | 28 | 8 | 0 | 7 | 15 | 18 | 1 | 4 | 7 | 21 | 32 | 32 | 18 |
| | E ,, | 0 | 0 | 23 | 30 | 44 | 42 | 16 | 10 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 26 | 41 |
| | W ,, | 84 | 49 | 53 | 39 | 43 | 41 | 51 | 70 | 68 | 89 | 83 | 91 | 99 | 84 | 87 | 86 | 51 | 47 | 42 |
| SEPTEMBER. | N | 0 | 2 | 7 | 7 | 7 | 2 | 0 | 13 | 12 | 0 | 3 | 3 | Observations for 15 days. | 0 | 5 | 3 | 2 | 11 | 2 |
| | NE | 0 | 3 | 17 | 30 | 5 | 12 | 15 | 3 | 12 | 2 | 0 | 6 | | 0 | 0 | 0 | 2 | 12 | 10 |
| | E | 0 | 2 | 20 | 0 | 38 | 23 | 0 | 0 | 8 | 0 | 0 | 3 | | 0 | 0 | 0 | 9 | 7 | 23 |
| | SE | 2 | 5 | 13 | 23 | 10 | 20 | 7 | 5 | 0 | 0 | 0 | 3 | | 0 | 0 | 0 | 17 | 5 | 25 |
| | S | 0 | 8 | 10 | 5 | 2 | 3 | 0 | 0 | 0 | 0 | 2 | 4 | | 0 | 0 | 7 | 4 | 12 | 5 |
| | SW | 55 | 35 | 5 | 1 | 0 | 8 | 33 | 10 | 0 | 3 | 15 | 18 | | 18 | 8 | 10 | 25 | 17 | 2 |
| | W | 42 | 30 | 23 | 12 | 27 | 25 | 0 | 23 | 8 | 20 | 52 | 49 | | 33 | 43 | 50 | 19 | 20 | 7 |
| | NW | 1 | 15 | 5 | 22 | 3 | 7 | 45 | 43 | 60 | 75 | 28 | 14 | | 48 | 43 | 30 | 8 | 3 | 25 |
| | Calm | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 14 | 13 | 1 |
| | N comp. | 1 | 15 | 22 | 43 | 13 | 15 | 42 | 45 | 62 | 54 | 23 | 17 | | 34 | 35 | 24 | 9 | 22 | 27 |
| | S ,, | 40 | 36 | 23 | 22 | 9 | 23 | 28 | 11 | 0 | 2 | 13 | 19 | | 13 | 6 | 14 | 33 | 27 | 24 |
| | E ,, | 1 | 8 | 41 | 37 | 49 | 45 | 15 | 6 | 16 | 1 | 0 | 9 | | 0 | 0 | 0 | 22 | 19 | 48 |
| | W ,, | 81 | 65 | 30 | 28 | 29 | 36 | 55 | 60 | 50 | 75 | 82 | 71 | | 79 | 79 | 78 | 42 | 34 | 26 |
| OCTOBER. | N | 1 | 7 | 23 | 17 | 13 | 12 | 5 | 26 | 26 | 14 | 32 | 21 | 4 | 1 | 14 | 6 | 27 | 24 | 14 |
| | NE | 2 | 6 | 8 | 18 | 1 | 18 | 76 | 24 | 27 | 34 | 14 | 28 | 33 | 24 | 26 | 19 | 17 | 27 | 13 |
| | E | 2 | 6 | 6 | 0 | 6 | 5 | 0 | 10 | 34 | 10 | 29 | 9 | 28 | 8 | 13 | 37 | 5 | 5 | 6 |
| | SE | 5 | 15 | 13 | 7 | 0 | 3 | 2 | 3 | 5 | 3 | 6 | 2 | 9 | 18 | 19 | 10 | 10 | 3 | 5 |
| | S | 3 | 10 | 6 | 1 | 3 | 7 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 5 | 0 | 8 | 3 | 2 |
| | SW | 47 | 23 | 16 | 2 | 10 | 18 | 11 | 2 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 9 | 7 | 3 |
| | W | 35 | 14 | 18 | 15 | 52 | 16 | 0 | 6 | 6 | 3 | 2 | 5 | 18 | 2 | 2 | 13 | 5 | 11 | 18 |
| | NW | 3 | 19 | 10 | 40 | 10 | 21 | 6 | 27 | 2 | 34 | 15 | 31 | 6 | 45 | 21 | 15 | 7 | 5 | 36 |
| | Calm | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 15 | 3 |
| | N comp. | 5 | 25 | 36 | 58 | 21 | 39 | 62 | 62 | 46 | 62 | 52 | 62 | 31 | 49 | 47 | 30 | 44 | 46 | 48 |
| | S ,, | 39 | 37 | 26 | 7 | 10 | 22 | 9 | 6 | 4 | 4 | 6 | 5 | 8 | 15 | 18 | 7 | 21 | 10 | 8 |
| | E ,, | 7 | 21 | 21 | 18 | 7 | 20 | 55 | 29 | 56 | 36 | 43 | 30 | 57 | 37 | 45 | 57 | 24 | 26 | 19 |
| | W ,, | 70 | 43 | 36 | 44 | 66 | 43 | 12 | 26 | 7 | 28 | 13 | 28 | 24 | 34 | 17 | 24 | 16 | 19 | 45 |

TABLE B.—*Differences of the above table and the corresponding averages (1876—average) reduced to four cardinal points.*

| Months. | Wind components. | Kurrachee. | Deesa. | Sirsa. | Delhi. | Agra. | Benares. | Seoni. | Pachmarhi. | Amraoti. | Akola. | Poona. | Bombay. | Belgaum. | Secunderabad. | Bellary. | Masulipatam. | False Point. | Cuttack. | Hazaribagh. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JUNE. | N | + 1 | + 1 | +12 | +23 | +13 | + 6 | + 9 | + 8 | +26 | + 9 | + 6 | — 1 | — 2 | + 4 | — 4 | + 2 | — 3 | —12 | + 4 |
| | S | 0 | — 3 | + 3 | —13 | 0 | + 4 | — 3 | — 2 | — 5 | + 1 | —11 | + 5 | —19 | — 5 | + 5 | + 4 | + 1 | +17 | — 4 |
| | E | — 1 | — 2 | — 3 | —16 | — 8 | — 7 | — 2 | — 3 | — 5 | — 2 | — 2 | 0 | + 1 | + 1 | + 4 | + 2 | — 6 | — 3 | —13 |
| | W | + 1 | + 6 | + 6 | + 8 | — 4 | + 8 | + 3 | — 2 | —12 | + 8 | + 3 | — 6 | +11 | 0 | — 4 | — 3 | + 4 | 0 | +12 | |
| JULY. | N | — 5 | + 1 | — 5 | — 3 | — 3 | + 3 | —13 | — 7 | +36 | — 7 | — 5 | — 3 | — 1 | — 6 | — 5 | — 5 | — 3 | —13 | — 1 |
| | S | 0 | + 5 | +32 | + 9 | —11 | + 1 | +19 | — 7 | —14 | + 6 | — 2 | + 2 | —32 | +28 | + 1 | + 1 | + 8 | + 9 | — 1 |
| | E | — 2 | + 1 | + 2 | — 3 | +27 | +19 | — 3 | — 2 | — 3 | 0 | 0 | — 1 | 0 | — 1 | 0 | — 2 | — 6 | — 5 | + 3 |
| | W | + 7 | + 5 | — 5 | — 3 | —19 | —14 | + 2 | +11 | — 5 | +10 | + 4 | + 3 | +16 | — 8 | + 3 | + 6 | + 9 | +12 | 0 |
| AUGUST. | N | — 1 | + 2 | — 8 | +15 | — 9 | — 8 | + 6 | — 7 | +29 | —10 | — 2 | — 5 | 0 | +20 | + 5 | — 7 | — 5 | + 3 | — 7 |
| | S | — 7 | +11 | +20 | — 8 | — 6 | + 9 | + 2 | — 2 | —13 | + 4 | — 7 | — 2 | —17 | —16 | — 4 | 0 | — 3 | +13 | — 5 |
| | E | — 1 | — 2 | — 5 | — 2 | +10 | + 4 | + 9 | + 6 | — 2 | 0 | — 1 | — 3 | — 1 | — 2 | — 1 | — 2 | +10 | +10 | + 2 |
| | W | + 7 | — 5 | +13 | + 3 | + 2 | +11 | —10 | — 4 | — 2 | +16 | + 1 | + 8 | +10 | + 1 | + 1 | + 7 | — 8 | + 2 | +11 |
| SEPTEMBER. | N | — 2 | — 1 | + 6 | + 8 | — 6 | — 2 | + 2 | + 7 | +32 | +22 | — 5 | — 3 | ? | +12 | + 9 | — 5 | — 2 | + 5 | + 5 |
| | S | — 1 | 0 | +11 | — 1 | — 2 | + 9 | + 3 | — 6 | —16 | — 3 | — 3 | — 3 | ? | — 9 | — 5 | + 2 | —10 | —10 | — 3 |
| | E | — 1 | 0 | +19 | + 9 | +12 | +10 | — 4 | — 9 | + 3 | — 1 | — 3 | — 1 | ? | — 4 | — 3 | — 3 | + 3 | — 5 | + 7 |
| | W | + 5 | +13 | — 7 | — 7 | —12 | + 4 | +10 | +14 | — 4 | +13 | + 9 | + 6 | ? | + 5 | — 1 | + 4 | + 2 | + 2 | — 5 |
| OCTOBER. | N | — 6 | — 7 | +15 | +18 | — 6 | +22 | +16 | +12 | +12 | +29 | +18 | +13 | +13 | + 4 | +11 | —16 | + 8 | + 6 | +12 |
| | S | + 3 | +14 | +13 | — 3 | — 2 | + 8 | — 5 | — 6 | — 9 | + 1 | —15 | — 9 | —11 | + 7 | — 1 | — 6 | + 5 | — 5 | —13 |
| | E | + 2 | — 1 | +11 | + 3 | 0 | + 2 | + 8 | —10 | + 5 | +12 | + 6 | — 5 | +21 | — 8 | + 9 | +18 | — 9 | — 6 | — 9 |
| | W | + 5 | + 8 | — 5 | — 5 | + 5 | 0 | — 5 | +10 | — 5 | +13 | —14 | + 3 | — 6 | +10 | —15 | + 2 | 0 | — 1 | + 9 |

The first point to be noticed (beginning with Western India) is that, at Kurrachee, the winds were persistently south-west or west throughout the season, nearly or quite to the exclusion of north-westerly winds; they were more westerly, and in August less southerly, than usual. Elsewhere, it can scarcely be said that any single direction was unduly preponderant in all months; but at Bombay, there was a slight excess of southerly elements also in June and July, and a deficiency of northerly elements up to the end of September, together with a somewhat greater excess than usual of westerly elements in every month except June.

In the interior of the country, the variations were greater, and it will be best to describe them month by month.

In June, at Sirsa, north-west winds were more than usually prevalent and east winds less so; but at Deesa, the direction was, as usual, persistently from between west and south; at Delhi, north and north-west winds were unduly prevalent, and at Agra north winds. At Benares west, with variations to north-west and south-west, was the dominant direction, to the exclusion of the more usual easterly winds.

These show that, in the Punjab and North-Western Provinces, the land wind was more than usually persistent; as indeed might have been inferred from the excessive pressure of the Punjab, Rajputana, Guzerat, and all the tract south of the Ganges, relatively

to the Gangetic plain; and this fact explains the dryness of North-Western India, while it is quite consistent with the small excess of rainfall in Sikkim and Assam.

Even at Hazaribagh, there was a small excess of north-west and west winds; but at Cuttack, while south-west winds predominated largely, as usual, there was a certain abnormal excess of south winds. On the Satpuras, (Seoni and Pachmarhi,) north or north-west winds were in slight abnormal excess; but the excess of the former was much greater at Amraoti, and of the latter at Akola. At Poona there was rather more north, or north-west, wind than usual and less south-west; at Belgaum, where west winds are always greatly predominant, they were even more than usually so, while south-west winds were largely deficient. Hence, while the northerly land wind was unusually persistent across the Satpuras and in Berar, and even to Poona, in the Western Deccan south-west winds were very deficient. Further east, at Secunderabad, the condition was almost identical with that of Poona.

This comparative absence of southing in the winds of all the north-western part of the Peninsula, is doubtless connected with the absence or deficiency of rain in the same region; but neither at Kurrachee nor Bombay, the two coast stations, is any similar peculiarity to be detected.

At Bellary, there was little that was anomalous, but south-east winds were slightly more prevalent than usual, at the expense of those from the opposite quarter. Of the two stations on the east coast there is equally little to be said.

The general fall of pressure in July, below the average, was favourable to a more generous precipitation; and, as a general rule, the abnormal northerly elements in the winds of North-Western India disappeared, and were even less prevalent than usual; Amraoti being the only conspicuous exception. At Sirsa, southerly winds (chiefly south and south-east) predominated in a very unusual degree; and, at Delhi, south-east winds only less so. At Agra, however, the winds were persistently east and south-west, and west winds very infrequent; and, at Benares, the excess of east winds was equally remarkable. These anomalies are such as might have been anticipated, having regard to the excessive rainfall of the month in the Punjab, Rajputana, and Central India; and are consistent with the explanation already given of that rainfall, *viz.*, the repeated passage of cyclonic vortices westward from Orissa, and their subsequent diversion to the Punjab; such storms, for instance, as that of August 1880 and September 1882, represented on Plate VI.

On the Satpuras, which lay to the south of the probable central track of the vortices, at Seoni, the wind was very steadily south-west, and north-west winds comparatively rare; and at Pachmarhi, west, with similar abnormal steadiness. At Akola, also to the south of the track, south-west and west winds were more than usually dominant; north-west winds less so. At Poona, there was still a slight deficiency of southerly elements in the prevailing west wind; and at Belgaum it would appear that, throughout, the direction was undeviatingly west. At Secunderabad, however, south-west winds were greatly preponderant at the expense of west winds; but, at Bellary, there was little that was anomalous.

It has been shown that these variations were associated with a more normal rainfall in the Peninsula. In the Deccan and on the Ghâts, indeed, there was rather more than usual, and in Hyderabad and Mysore the deficiency was less than in the other monsoon months.

In August, with the re-establishment of a certain excess of pressure in North-Western, and especially across Central India, the abnormal features of June to a certain extent re-appeared, but not in the Punjab. At Sirsa there was a very marked abnormal preponderance of south-west winds, changing occasionally to south; and at Deesa, the

directions were somewhat more southerly than usual: conditions which may perhaps be connected with the excessive rainfall on the north-western hills. But at Delhi, although south-east and south-west winds occasionally blew, northerly winds, alternating to north-east and north-west, were the abnormal feature of the month. At Agra, there was still an unusual prevalence of east winds, though west was the dominant quarter; and at Benares, the directions were more easterly, but also more southerly and south-westerly than usual. At Hazaribagh, west winds were in considerable abnormal excess, relatively to the average, but, on the whole, not more frequent than those from the opposite quarter; in both cases varying frequently to the northward and southward. These features are probably connected with the concentration of the rainfall in Behar, Chutia Nagpur, and the adjoining districts of Bengal. At Cuttack they were more southerly, and also more easterly than usual.

On the Satpuras, while mainly west and north-west at Pachmarhi, and north-west at Seoni, there was a small abnormal proportion of easterly winds at both stations, and at Seoni of south-west winds. At Akola west winds largely predominated, and at Amraoti north-west winds, westerly elements being unduly preponderant at the former, and northerly at the latter station.

The most striking abnormal feature of the rainfall was its deficiency in the Peninsula, especially in the Deccan. At Poona, southerly winds were somewhat deficient, and at Belgaum much more so, while, at the latter, west winds were only slightly less exclusively persistent than in July. At Secunderabad north-west winds, together with west winds, were almost uninterrupted, while the usual south-west winds were almost suppressed; and in a slightly less extent the same was the case at Bellary. These facts probably furnish the partial explanation of the drought. Even on the east coast, at Masulipatam, west winds were greatly dominant, and easterly winds quite absent. At False Point, however, as at Cuttack, there was an abnormal proportion of easterly winds.

The anemometric anomalies of September, like those of the rainfall, were very similar to those of August. At Sirsa, north-east, east, and south-east winds continued to preponderate largely, and rain continued on the hills and eastern districts of the Punjab; in the latter more abundantly than usual. At Delhi, north-east winds preponderated, and abnormally so, over westerly winds. At Agra and Benares, a large excess of east and south-east winds, in like manner, excluded the more usual north-westerly winds. But at Deesa westerly winds were more than usually frequent. These anomalies confirm the idea that the rainfall of this month in Rajputana, and the floods of the Kanhan and the western rivers were due to the passage of a cyclonic vortex on a path parallel with the Satpura chain. On the Satpuras and in Berar, north-west winds were re-established with great persistence; and at Poona north-west winds, though far from preponderating, were more frequent than usual. But the chief direction was north or east. There is no wind register for Belgaum this month, but at Secunderabad the prevailing direction was north-west (more so than usual), though north-east and south-east were not infrequent. At Bellary, west and north-west winds blew almost without intermission, the latter being more than usually frequent. This undue prevalence of north winds at Poona, and of north-west winds at Secunderabad and Bellary, help to explain the drought of the Peninsula.

In September, then, the winds of the greater part of Northern India had been characterized chiefly by the undue frequency of easterly elements and those of the Peninsula by that of north or north-west elements. In October, at nearly all stations, with the

conspicuous exceptions of Kurrachee and Deesa, northerly winds became of more abnormal frequency than in any previous months. At the two western stations, south-west winds continued as persistently as ever; and at Sirsa, together with north and north-west winds, south-east and south winds were also very frequent; at Benares the anomalies were very similar. At Poona, Belgaum, and Secunderabad, north-west winds predominated unduly; and the same, together with north-east winds, at Bombay. At Bellary, northerly and easterly elements were most conspicuous, though north-west winds were not infrequent. This undue north-westerly tendency in the winds of the Peninsula is what might have been expected from the course of the isobars, and it is consistent with the dryness of the Carnatic and the excessive rainfall in the Bay, which culminated in two severe cyclones.

The abnormal anemometric features of November were, in the main, similar to those of October, but more pronounced. There was the same excess of easterly winds in the hills of the Upper Punjab; a feature doubtless associated with the unusual fall of one or two inches of rain on the North-West Himalaya and in the Derajat; the same excess of northerly movement in the North-West Provinces, the eastern half of the Central Provinces, Orissa and Lower Bengal; and northerly and westerly elements were equally preponderant in the Peninsula, attended with the same failure of rains in the Carnatic, and excessive rainfall over the eastern portion of the Bay. In December also, the winds were steadily from northern quarters, but perhaps less abnormal.

The distribution of rain, which was the final outcome of the weather conditions here rapidly sketched out, was that represented in the Tables on pages 149 and 150. There was a mean excess of 4·6 inches, amounting to 20 per cent. of the average rainfall, in the Central India States; that is, on the western half of the plateau south of the Ganges: and one of 5·3 inches, equal to 11 per cent. of the average, in Western Bengal, Chutia Nagpur, &c., which form the eastern extension of this high land. There was a smaller excess in Lower Bengal, further east, and in Rajputana, further west. With regard to Lower Bengal, it must be remarked that the southern portion of the province had, as a rule, a large excess; but this according to the classification here adopted, was partly neutralized by the deficiency of Northern Bengal. The only remaining Provinces, in which the mean fall exceeded the mean average, were the Punjab and Sind, and here the excess was slight.

The Provinces, then, in which the rainfall exceeded the average, are those that, together, form a band across India north of the Satpura chain and Orissa, coinciding with the most usual tracks followed by the cyclonic storms of the monsoon season; and also with the southern half of the band of normal minimum pressure at this season. And, although the details of the weather phases of the year have not been laid down on charts so as to enable us to pronounce positively, there are good reasons for believing that this rainfall distribution was really determined by the passage of several such vortices. It was mainly due to the months of July and September.

Over the remainder of India, and all the Eastern Peninsula, as far as it is represented in the Tables, the rainfall was deficient; conspicuously and disastrously so in the North Deccan, Hyderabad, Mysore and Bellary, and the Carnatic, where the mean deficiencies amounted to —13·5, —13·7, —14·4, and —13·2 inches respectively, or 46, 43, 50 and 39 per cent. of the averages. On the west coast and Ghâts, the deficiency, though absolutely somewhat greater, was relatively much less (only 8 per cent. of the average). In Berar and Khandesh it was 23 per cent., in Guzerat only 8, and in the Central Provinces south of the Satpuras 12 per cent.; the same in Orissa and the Northern Circars.

Hence, the region of greatest deficiency was all that tract to the east of the Ghats, in which the normal rainfall is low. It is swept by a strong monsoon current, but a horizontal current which locally does not precipitate moisture; and it would appear from the description of the wind anomalies, that this current was more steadily and persistently west than is even usually the case.

In the Carnatic, the deficiency of the summer monsoon months, June to September, was serious enough; but would not have been so disastrous, had not the drought been continued through October and November, the usual season of heavy rain, and that on which depends the filling of the large tanks everywhere dotted over the province. The cause of this failure is evidently to be found in the persistence of the dry land winds, and the transfer of the seat of precipitation from the Carnatic to the south of the Bay of Bengal, *i.e.*, to a more easterly site. This is shown, not only by the fact that the winds of the peninsula were more westerly or less easterly than usual, but also by the excessive rainfall of the Bay Islands, and by the fact that, during October, two severe cyclones were generated in the south-east of the Bay, indicating the concentration of the rainfall over this area.

Some other facts bearing on the anomalous meteorology of this year and also of 1877, will be given at a subsequent part of this memoir.

*The year 1877.*—Like its predecessor, this was a year of very deficient rainfall; on the general average of India proper, (*i.e.*, excluding the Eastern Peninsula,) quite as much so as 1876; but it was North-Western, and not Southern, India that suffered most severely from the scarcity.

The anomalies of the rainfall distribution are represented in the second chart of Plate XI. From this chart and the tables at pages 149 and 150 it would seem, at first sight, that the Punjab was not affected by any failure of the rainfall; but this is because the excessive rain of most of the earlier, and all the later months of the year, in certain parts of the province, more than compensated the great and universal deficiency of July and August, and the partial deficiency of September; whereas those provinces to the south and south-east of the Punjab, in which the cold weather and spring rainfall is always lighter, and the summer rainfall much the more important, the almost complete failure of this latter caused a great deficiency of the annual total.

In the North-West Provinces, this deficiency was, on the whole, greater than in any other of the last twenty years, even surpassing that of 1864 and 1868; and in Rajputana and the Central India States, it was but slightly less than in 1868, and exceeded that of any other year of the series. In Behar, also, it was very considerable; but both absolutely, and still more relatively to the average, less than further westward. In Guzerat, however, it exceeded that of any of the above provinces, and was the greatest on record; and it extended with only somewhat diminished intensity, on the one hand to Sind, and on the other to the Konkan, where it was almost as great as in Central India. Hyderabad, and the northern portion of the Deccan, also suffered from drought in the summer months, though less severely than in 1876; and in the latter, the unusually heavy rain of September and October more than compensated for the drought of July and August. In Southern India, the rainfall of the year much exceeded the average, owing to the copiousness of the late autumnal rains.

The following table exhibits the mean rainfall of each of the rainfall provinces in each month of the year, together with its difference from the corresponding average of past years, up to 1883 inclusive:—

*Table of the mean rainfall of each rainfall province in each month of 1877, and its difference from the normal average.*

| Provinces. | Number of Station. | January. | | February. | | March. | | April. | | May. | | June. | | July. | | August. | | September. | | October. | | November. | | December. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mean 1877. | Difference. | Mean 1877. | Difference. | Mean 1877. | Difference. | Mean 1877. | Difference. | Mean 1877. | Difference. | Mean 1877. | Difference. | Mean 1877. | Difference. | Mean 1877. | Difference. | Mean 1877. | Difference. | Mean 1877. | Difference. | Mean 1877. | Difference. | Mean 1877. | Difference. |
| I. Western Himalaya | 26 | 5·1 | +2·8 | 4·4 | +1·1 | 5·5 | +2·4 | 5·2 | +3·3 | 4·6 | + 2·0 | 4·7 | — 1·7 | 8·2 | — 9·4 | 4·7 | —11·5 | 4·1 | —2·9 | 2·7 | +1·7 | 2·4 | +1·9 | 6·6 | +5·4 |
| II. Punjab Plains | 29 | 2·5 | +1·5 | 3·0 | +2·0 | 1·0 | —0·1 | 2·0 | +1·2 | 1·1 | + 0·4 | 1·8 | — 0·1 | 2·0 | — 4·3 | 0·7 | — 4·3 | 2·9 | +0·5 | 1·0 | +0·6 | 2·1 | +1·8 | 3·8 | +3·3 |
| III. N.-W. Provinces and Oudh. | 45 | 2·2 | +1·4 | 1·5 | +0·9 | 0·7 | +0·2 | 0·4 | +0·2 | 0·6 | — 0·2 | 1·8 | — 2·8 | 3·8 | — 7·7 | 2·8 | — 6·3 | 1·5 | —4·8 | 4·1 | +2·8 | 0·1 | 0 | 2·2 | +1·9 |
| IV. Rajputana (*a.* E. Division.) | 18 | 0·3 | +0·1 | 0·6 | +0·3 | 0·1 | —0·1 | 0·2 | +0·1 | 0·9 | + 0·2 | 1·9 | — 0·9 | 4·0 | — 6·0 | 0·7 | — 7·7 | 1·9 | —3·5 | 2·8 | +2·1 | 0·3 | +0·2 | 1·4 | +1·2 |
| Do. (*b.* W. Division) | 1 | *Nil* | —0·3 | 1·1 | +0·8 | 0·1 | +0·1 | *Nil* | 0 | 0·8 | + 0·2 | *Nil* | — 0·8 | 3·0 | — 0·5 | *Nil* | — 5·2 | 0·1 | —2·5 | 0·1 | —0·2 | 0·4 | +0·4 | *Nil* | 0 |
| V. Central India States | 21 | 1·5 | +1·1 | 0·9 | +0·5 | 0·3 | +0·1 | 0·5 | +0·4 | 0·5 | + 0·1 | 5·1 | — 0·8 | 6·7 | — 7·3 | 6·1 | — 4·8 | 2·6 | —5·0 | 2·5 | +1·5 | 0·2 | +0·1 | 1·4 | +1·2 |
| VI. Behar | 14 | 2·1 | +1·5 | 1·5 | +0·9 | 0·3 | —0·1 | 0·7 | +0·2 | 4·1 | + 2·3 | 1·7 | — 5·1 | 10·2 | — 1·4 | 5·1 | — 5·4 | 4·7 | —3·1 | 4·0 | +0·8 | *Nil* | —0·2 | 0·5 | +0·5 |
| VII. Western Bengal | 10 | 2·0 | +1·5 | 2·3 | +1·4 | 1·0 | +0·3 | 1·6 | +0·9 | 4·2 | + 2·0 | 5·7 | — 2·1 | 10·2 | — 2·1 | 14·3 | + 1·8 | 7·8 | —0·1 | 2·9 | —0·7 | 0·1 | —0·2 | 0·9 | +0·7 |
| VIII. Lower Bengal | 28 | 1·7 | +1·3 | 1·7 | +0·7 | 1·6 | +0·1 | 3·6 | +0·8 | 6·7 | + 0·3 | 8·7 | — 4·2 | 16·4 | + 3·2 | 16·3 | + 3·6 | 11·7 | +1·3 | 2·9 | —2·0 | 0·1 | —0·4 | 0·5 | +0·3 |
| IX. Eastern Himalaya | 7 | 1·4 | +0·7 | 0·5 | —0·3 | 1·9 | 0 | 5·2 | +0·6 | 12·9 | + 1·3 | 19·1 | —11·7 | 32·1 | + 2·0 | 10·4 | —16·7 | 25·6 | +4·9 | 1·5 | —4·4 | *Nil* | —0·2 | 0·2 | 0 |
| X. Assam and Eastern Bengal. | 17 | 1·3 | +0·6 | 1·5 | +0·2 | 4·7 | +1·2 | 5·9 | —1·6 | 13·6 | + 0·6 | 13·7 | — 7·2 | 21·9 | + 2·3 | 13·8 | — 3·7 | 18·6 | +4·8 | 2·8 | —2·8 | 0·9 | 0 | 0·6 | +0·2 |
| XI. Orissa and Northern Circars. | 16 | 1·2 | +0·9 | 2·6 | +2·0 | 1·6 | +0·9 | 3·2 | +2·0 | 6·6 | + 3·6 | 4·3 | — 1·9 | 7·1 | — 1·1 | 6·5 | — 1·8 | 6·9 | —1·7 | 4·0 | —3·7 | 0·3 | —1·8 | *Nil* | —0·7 |
| XII. Central Provinces South. | 19 | 2·9 | +2·4 | 0·9 | +0·5 | 0·8 | +0·2 | 2·4 | +2·0 | 2·1 | + 1·1 | 8·4 | — 0·2 | 11·8 | — 3·8 | 12·1 | + 0·5 | 4·6 | —4·0 | 3·0 | +1·1 | 0·2 | —0·2 | 1·4 | +1·2 |
| XIII. Berar and Khandesh | 13 | 1·4 | +1·0 | 0·5 | +0·4 | 0·5 | +0·2 | 0·6 | +0·5 | 0·2 | — 0·4 | 5·4 | — 1·4 | 4·6 | — 4·3 | 5·9 | — 1·8 | 3·6 | —3·1 | 2·7 | +0·4 | 0·2 | —0·4 | 1·7 | +1·4 |
| XIV. Guzerat | 13 | 0·2 | +0·1 | 0·6 | +0·5 | *Nil* | 0 | 0·1 | +0·1 | 1·5 | + 0·1 | 2·8 | — 1·6 | 3·1 | — 9·1 | 0·8 | — 7·6 | 4·0 | —2·0 | 4·0 | +3·1 | 0·2 | 0 | 0·4 | +0·3 |
| XV. Sind and Cutch | 10 | 0·2 | —0·1 | 0·5 | +0·3 | 0·2 | 0 | 0·6 | +0·3 | 0·2 | 0 | 0·2 | — 0·6 | 0·2 | — 2·8 | *Nil* | — 2·8 | 3·0 | +2·0 | 0·3 | +0·1 | 0·1 | 0 | 0·2 | +0·1 |
| XVI. North Deccan | 14 | *Nil* | —0·2 | 0·1 | +0·1 | 0·1 | —0·2 | 1·6 | +0·6 | 1·1 | — 0·7 | 7·3 | + 2·2 | 1·6 | — 4·2 | 3·7 | — 1·1 | 9·4 | +4·8 | 6·9 | +2·3 | 0·2 | —0·8 | 1·1 | +0·8 |
| XVII. Konkan and Ghats | 12 | *Nil* | —0·2 | 0·3 | +0·3 | *Nil* | —0·1 | *Nil* | —0·2 | 0·5 | — 1·0 | 28·3 | — 6·7 | 22·7 | —30·7 | 24·0 | —10·3 | 13·6 | —5·8 | 9·5 | +4·9 | 0·3 | —0·6 | 0·3 | +0·2 |
| XVIII. Malabar and Ghats | 8 | *Nil* | —0·4 | 0·2 | —0·1 | 0·8 | 0 | 3·7 | +1·0 | 3·3 | — 4·5 | 35·8 | + 4·1 | 13·2 | —19·5 | 26·4 | + 9·2 | 15·2 | +5·8 | 16·9 | +9·1 | 3·5 | +0·4 | 2·6 | +1·6 |
| XIX. Hyderabad | 19 | 0·5 | +0·4 | 0·4 | +0·3 | 0·9 | +0·5 | 1·3 | +0·8 | 1·5 | + 0·6 | 2·7 | — 2·1 | 2·5 | — 3·3 | 3·6 | — 3·6 | 6·6 | —0·2 | 5·6 | +2·6 | 0·5 | —0·5 | 1·3 | +1·2 |
| XX. Mysore and Bellary | 18 | *Nil* | —0·2 | *Nil* | —0·2 | 0·8 | +0·4 | 1·2 | +0·1 | 2·4 | — 1·1 | 4·0 | + 0·8 | 1·2 | — 2·4 | 2·3 | — 2·2 | 7·5 | +2·6 | 9·1 | +3·5 | 1·9 | 0 | 0·5 | +0·1 |
| XXI. Carnatic | 38 | 0·1 | —0·5 | 0·1 | —0·4 | 1·2 | +0·7 | 0·6 | —0·5 | 4·7 | + 2·1 | 2·2 | + 0·4 | 1·0 | — 1·5 | 1·6 | — 2·6 | 7·5 | +3·2 | 9·9 | +2·9 | 7·7 | +0·9 | 6·4 | +3·6 |
| XXII. Arakan | 7 | 0·2 | —0·2 | 1·7 | +1·0 | 1·7 | +0·4 | 1·2 | —1·6 | 5·0 | — 6·4 | 29·3 | — 5·5 | 46·6 | +10·0 | 46·5 | +16·5 | 23·9 | +5·2 | 5·1 | —3·8 | 5·5 | +3·0 | *Nil* | —0·6 |
| XXIII. Pegu | 7 | *Nil* | —0·1 | *Nil* | 0 | *Nil* | 0 | 0·2 | —1·0 | 2·9 | — 4·2 | 20·7 | + 7·3 | 17·6 | + 1·7 | 20·6 | + 5·7 | 7·9 | —3·6 | 7·9 | +1·5 | 3·2 | +0·6 | *Nil* | —0·1 |
| XXIV. Tenasserim | 4 | *Nil* | —0·1 | *Nil* | —0·6 | 1·0 | +0·1 | 0·5 | —3·6 | 11·8 | — 4·8 | 41·3 | + 6·8 | 39·8 | + 1·4 | 41·8 | + 5·8 | 18·3 | —9·4 | 7·8 | —3·0 | 2·4 | +0·1 | 0·3 | +0·1 |
| XXV. Bay Islands | 2 | 0·8 | —1·3 | 2·7 | +1·4 | 0·8 | —0·5 | 1·5 | —2·9 | 3·7 | —10·3 | 23·0 | + 7·1 | 6·0 | — 8·5 | 14·8 | + 1·7 | 16·8 | +1·9 | 12·9 | —0·3 | 6·8 | —3·8 | 7·5 | —1·0 |

Thus, in respect of the rainfall, all the seasons of 1877 were strikingly abnormal. January and February were remarkably wet months in nearly all parts of Northern India; as also had been the preceding October and November in the most northern province, and especially on the North-West Himalaya. In March, April, and May, the fall was, on the whole, quite up to the average; April being especially wet on the North-West Himalaya and in the Punjab, and May in all parts of the Himalaya and Bengal. On the first of these tracts, the fall was from 1 to upwards of 3 inches above the average in every one of the first five months of the year; and on the Sikkim Himalaya from ½ to 1½ inches above it in January, April, and May. With respect to the snowfall of the North-West Himalaya in Gurhwal, the following description is quoted from the report of an officer of the Topographical Survey, Mr. E. C. Ryall:—

"The winter of 1876-1877 proved to be the severest known for many years past among these hills; the spring was wet and cold, and felt quite wintry. When I left Dehra Dun, I was in hopes that the wet weather would not last long; it continued, however, with few intermissions, till the 8th June; the most noticeable break, up to that time, being from the 9th April up to the 17th. * * * * Mountains which, in ordinary years, had their snow line, at the end of April, at an elevation of 12,000 feet above sea level, were mantled with snow down to 9,000 feet; and valleys which, at that time of year, used to be clear of all snow up to 10,000 feet, were literally choked with snow down to 6,000 feet; this accumulation in the valleys being caused by snow-drifts and avalanches from the mountain sides."

In Southern India, the anomalies of the rainfall in the earlier months of the year were almost as great. In the west of the Peninsula, indeed, the absence of rain, as far south as Dharwar, was such only as is usual at this season; and, in April, the drought was interrupted above the Ghâts, (though not in the Konkan,) by a very general fall of rain, which followed on a severe storm on the Orissa coast. In Orissa and the Northern Circars, the Central Provinces and Hyderabad, as in the Northern Punjab, there was more than the usual amount of rain in all the earlier months; and in the Carnatic in March and May. On the Malabar coast, there was rather more than usual in April; but in May, when the summer rains usually set in in Travancore, the rainy wind was there withheld; whereas, in the Carnatic, north of the Cavery, and still more in the Northern Circars, and in Western and Northern Bengal, there was heavy and unusual rain, the accompaniment of a cyclone (No. 1 of Mr. Eliot's list[1]), which was formed on the 13th or 14th May to the east of Ceylon, thence travelled northward to the Coromandel Coast, somewhat north of Nellore, and subsequently, turning to the north-east, skirted the Eastern Ghâts to Chutia Nagpur and Behar, where it became extinct between the 19th and 20th.

The atmospheric pressure of these earlier months displayed some features not less anomalous than those of the rainfall; as is shown by the following tabular summary of the barometric anomalies, in each month, in different parts of India, and for the spring months, March to May, in the charts on Plate XV.

[1] Indian Meteorological Memoirs, Volume II, No. 6. Also for a detailed history of this storm, see J. Eliot's Report on the Madras Cyclone of May 1879.

*Geographical summary of monthly pressure anomalies (in decimals of an inch) in the five months January to May 1877.*

| Provinces. | Stations. | January. | February. | March. | April. | May. |
|---|---|---|---|---|---|---|
| North-Western Himalaya | 2—3 | +·057 | +·005 | +·017 | +·050 | +·034 |
| Sikkim Himalaya | 1 | +·086 | +·010 | +·021 | +·020 | +·007 |
| Punjab Plains | 8—9 | +·069 | +·039 | +·018 | +·094 | +·064 |
| Gangetic Plains | 11 | +·067 | +·055 | +·029 | +·087 | +·041 |
| Sind and Guzerat | 3—6 | +·035 | +·022 | +·005 | +·043 | +·054 |
| Eastern Rajputana and Central India | 3—6 | +·054 | +·045 | +·011 | +·053 | +·055 |
| Nerbudda Valley | 3 | +·048 | +·037 | +·012 | +·045 | +·052 |
| Chutia Nagpur | 1 | +·065 | +·046 | +·028 | +·076 | +·055 |
| Lower Bengal | 6—7 | +·064 | +·062 | +·036 | +·081 | +·032 |
| Assam and Cachar | 3 | +·078 | +·057 | +·021 | +·072 | +·022 |
| Orissa | 2 | +·071 | +·061 | +·046 | +·089 | +·057 |
| Central Provinces South and Berar | 6 | +·051 | +·040 | +·026 | +·069 | +·057 |
| Konkan | 2—3 | +·048 | +·031 | +·017 | +·032 | +·043 |
| Malabar | 1 | +·049 | +·040 | +·037 | —·016 | +·027 |
| Deccan and Mysore | 5—7 | +·035 | +·013 | +·013 | +·039 | +·030 |
| East Coast and Carnatic | 7—8 | +·048 | +·012 | +·021 | +·054 | +·032 |
| Arakan and Pegu | 6 | +·067 | +·049 | +·035 | +·057 | +·023 |
| Tenasserim | 2 | +·054 | +·047 | +·044 | +·055 | +·022 |
| Bay Islands | 2 | +·056 | +·034 | +·016 | +·035 | +·017 |

It has been shown on a preceding page, that the pressure was much above the average in December 1876. This excess lasted throughout the first half of 1877, and, indeed, with a partial interruption in August, up to November inclusive, and was greatest in January and April, and, in the latter half of the year, in October.

We have seen that January and February, notwithstanding the excessive pressure of the atmosphere, were very rainy months in Northern India. Now, in January, the greatest excess of pressure was on the Sikkim Himalaya, and next thereto in Assam and Cachar. Orissa, the Punjab and Gangetic plain, Chutia Nagpur, Bengal and Arakan and Pegu follow; and the excess was least in Sind and Guzerat in the west, and on the Deccan plateau in the south. Hence, the abnormal features of the distribution are such as might be expected to coincide with an unusual tendency to south-east and east winds in Northern India, and southerly winds in the east of the Peninsula; or alternatively, a weakening of those from the opposite quarters, which are normally the prevailing winds in this month. In certain provinces, this latter was actually the case. The report of the year (written by Mr. Eliot)[1] states—

"The most important feature of the air motion of Northern India * * * * was that the velocity of the prevailing winds was considerably below the average. This was very marked at all the Punjab stations, where it was barely 60 per cent. of the normal amount. In the North-

[1] Report on the Meteorology of 1877, p. 49.

West Provinces, every station, except Bareilly, presents the same feature. In the Punjab, the northerly element of the mean wind direction was more strongly developed than usual, and the westerly element unusually weak. The reverse was the case in the western divisions of the North-West Provinces. In the eastern divisions, the variations were similar in character to those of the Punjab, and were even more strongly marked. 'In Bengal, Arakan, and Orissa, the northerly element of the mean wind direction was much stronger than usual, and the westerly element comparatively feeble.' In the Central Provinces 'the chief feature in the winds is the excessive velocity,' 'probably 30 per cent. above its actual amount.'"

The one common feature * * * of the wind elements in Western India and the Central Provinces * * is a stronger easterly component than usual.

In January, the excess of pressure on the North-West Himalaya had been much less than in Sikkim. But in February, over the greater part of the mountain range, any excess was but small; and in Kumaon and Sirmoor there was a relative depression, while at Murree the excess was as great as on the plains, or greater; and this relation lasted all through the spring and summer months, disappearing only in October. In the stratum of air over the North-West Himalaya, there must then have been a tendency to northerly winds. On the plains, the smallest excess was still in Sind and Guzerat, as in January, and the greatest in Bengal, Assam, and the Gangetic plains. In conformity herewith, it is mentioned in Mr. Eliot's report—

"The leading features of the air motion in Upper India, during the month of February, indicate clearly a continuation of the characteristics which distinguished the month of January."

In temperature, however, there was a marked difference between the two months; January being rather a warmer month than usual; while, in February, there was a great depression of temperature, amounting, at most stations in Northern India, to between 5° and 6° below the normal average of the month.

In March, which was also cool (though the depression, relatively to the average of the month, was less than in February in Northern India), the general excess of pressure was less than in February, but the relative distribution of this excess was similar. In Sind it was evanescent, and nearly so in Guzerat and the south-west corner of the Malwa plateau; while it was greatest in Orissa, Tenasserim, and Malabar, and but slightly less in Pegu and Bengal. It was greater in the Gangetic plain and the Punjab than in Rajputana, Central India, and the Nerbudda Valley. On the North-West Himalaya, the excess was greater than in Sikkim, and this difference increased in the following months, and lasted without interruption until October. The distribution of pressure in this month and its anomalies are shown on Plate XV. The peculiar features of the winds of Northern India are similar to those of the previous month, *viz.*, unsteadiness, and low rate of movement; in the Punjab more northerly than usual, in Behar and Lower Bengal more southerly; and in the Central Provinces, Orissa, and Western Bengal, strongly and steadily westerly. In the south of the Peninsula, they were very steady from the east.

In April, the abnormal coolness of which, in Northern India, was nearly as great as in February, (on the North-West Himalaya much greater), the excess of pressure again increased, and in the Punjab, the Gangetic plain, Orissa and Lower Bengal, amounted to nearly 0·1 inch. In Lower Sind, Guzerat, and the Konkan, it was less than half as much (between 0·03″ and 0·04″); and at Cochin, and there alone, the pressure was below the average. In the Carnatic, and also in Arakan and Pegu, it was less than in Bengal, but still between 0·05 and 0·06; and the tendency to favour southerly winds up the east of the

peninsula and easterly winds in Northern India will be obvious on an inspection of the baric isabnormals on Plate XV. The effect of these anomalies, in modifying the normal scheme of pressure, will be seen on comparing the isobars on this chart with those on Plate IV.

As might be anticipated from these anomalies, the Punjab winds were generally from the east or north-east instead of from north-west; but at Agra, Bareilly, and some other stations on or to the south of the Ganges, more southerly and stronger than usual. In Oudh, however, they were more westerly; and here and in the Punjab, the movement was low. In Behar, Chutia Nagpur, Bengal and Orissa, the characteristics were as in Oudh. In the Peninsula, the winds were steadily from south-east to an unusual degree, but the motion was low.

Lastly, in May, the abnormal depression of temperature was only about half as great as in April in the greater part of Northern India, but in some parts of the Central Provinces quite as great. On the Himalaya, it was about the same as on the plains. The general average excess of pressure was also less than in April, almost equal to that of February. It still remained greatest in the Punjab, but over the remainder of the country the distribution presented a new feature, which lasted more or less distinctly through the monsoon months. A ridge of relative, and about equal, excess extended from Western India across Rajputana, Central India, the Central Provinces, and Orissa, with a less excess on the Gangetic plain and Bengal on the one hand, and over the Peninsula on the other. The smallest excess was in Eastern Bengal and Assam, and in Sikkim it was evanescent. It was small also on the Malabar coast, and even less at Tenasserim and the Bay Islands. The resulting distribution is shown on the third chart on Plate XV, in which the ridge across Central India is shown by the isabnormal +·06, and also in the form of the isobar 29·65″. With the establishment of this new barometric feature, the westerly character of the winds of the Gangetic plain became unusually developed, though the rate of movement remained low. In the Punjab, the directions were very changeable; but there was an undue excess of northerly winds at Delhi and also at Deesa, and southerly (south-west) winds formed an unusual element at some stations in North-West Provinces, and at Jubbulpur, Seoni and Pachmarhi. North-west winds were in abnormal excess, (greater than in the previous months,) in the Konkan and Western Deccan, and, to a certain extent, at Sholapur. At Secunderabad, south-east winds were still unduly frequent, but less so than in March and April. In Berar, and also at Poona, westerly elements were deficient and easterly more frequent than usual.

Thus, then, the winter and spring were unusually wet in Northern India, and the Himalayan snowfall was such as had been unprecedented for many years. On the average of all the rain-gauge stations of the North-West Himalaya, the precipitation was not less than 66 per cent. in excess of the average. This was associated with a universal excess of pressure, greatest in Northern and Eastern India, and favouring the easterly and southerly winds which brought up the rain. These southerly winds showed themselves in the east of the Peninsula, in the Central Provinces, and at some stations in the North-West Provinces, especially Benares. Up to the end of April, the least excess of pressure was in Sind and Guzerat, and in the extreme south-west on the Malabar coast; but in May, the relative depression in Sind and Guzerat disappeared, and a ridge of local excess was developed across Central India, intensifying the westerly winds of the Gangetic plain and Western

Bengal, while to the south an opposite effect was produced. In this month, for the first time, the rainfall of the Gangetic plain was slightly below the small normal average of the month.

I now come to the consideration of the monsoon and later months of the year. And first of the rainfall.

The monsoon rains did not reach Bombay until nearly a fortnight after the usual date, *viz.*, on the 18th June, when a week of (in general) heavy rain followed. The fall of the month exceeded the average in Malabar and also the Northern Deccan; but was much below it in the Konkan, except in the neighbourhood of Bombay.

In Bengal, there was but little heavy rain throughout the month; but in the south-east of the Bay and in Tenasserim and Pegu, it was unusually heavy. All over Northern India, with the exception of the extreme north and the extreme east of the Punjab, and also of the Central Provinces, there was more or less deficiency; especially so in the Sikkim Himalaya, Bengal, Behar (where there was scarcely any rain), the North-West Provinces, Assam, and Eastern Bengal. The Central Provinces had, on the whole, about an average amount.

The drought, which had been partial only in June, became universal, or nearly so, in July; the only exceptions, in India, being Lower Bengal and the Sikkim Himalaya, with Assam and Eastern Bengal. In these latter provinces, there was a small excess of 2 or 3 inches; but it was much larger on the Arakan coast, a little further south, and there was a small excess in Pegu and Tenasserim. Everywhere else, both in Northern and Southern India, the drought was very great. On the North-West Himalaya, the Punjab and Gangetic plains, the mean deficiency was more than two-thirds of the normal average, and in Eastern Rajputana, Central India, Berar and Khandesh, and all down the west coast, one-half and more; while, in Guzerat, there was only one-fourth of the average fall. In Sind, there was virtually no rain; and in the Deccan, Hyderabad, Mysore, Bellary, and the Carnatic, the whole fall of the month was between one-third and one-half the average.

One storm of the usual monsoon type, and one only (No. 2 of Mr. Eliot's list), was formed in the north-east of the Bay, whence, travelling westwards, it reached the Orissa coast, traversed Orissa and the Tributary mehals, passing north of Sambalpur, and near Jubbulpur to Central India, where it broke up.

In August, the drought continued, in intensified form, in Northern India, and especially in the Himalaya; but somewhat mitigated in the Peninsula, and especially on the Malabar coast, where the rainfall was one-third greater than the average. In Bengal, there was a great contrast between the northern and southern districts. In Chutia Nagpur and Beerbhoom, in the Gangetic delta and Arakan, the fall was excessive, but the districts north of the Ganges shared the drought of Upper India, and in Sikkim, the whole rainfall of the month was less than two-fifths the average. In Assam also, the fall was deficient.

This distribution was the result of no less than five storms, (Nos. 3, 4, 5 and 6 of Mr. Eliot's list, the first of which consisted of two successive vortices). They were all formed at the head of the Bay, three of them a little to the east of the Sandheads, and a fourth close under the coast of Arakan; and all travelled on courses between north and north-west, and broke up after a course of one or two hundred miles over the land.

On the Punjab plains, in Rajputana, Guzerat and Sind, there was little or no rain; and on the North-Western Himalaya and the Gangetic plain less than one-third the average; in Behar one-half, and on the Central India plateau little more than one-half. In the Central Provinces south of the Satpuras, however, there was a full average. On the plateau of Hyderabad and Mysore, there was a deficiency of half the normal fall, but in the Deccan, Berar, and Khandesh of less than one-fourth, and in the Konkan of two-fifths. In the Carnatic there was a deficiency of three-fifths. As in the previous month, there was an excessive fall all through the Burmese peninsula, relatively much greater than in July, and at the Bay Islands also a certain excess.

All through September, the drought continued on the plains of North-Western India, excepting in the Punjab; in the North-West Provinces and Rajputana, it was as great as in the previous month, and only somewhat less in Behar; while it was still greater on the plateau of Central India, in Berar and Khandesh, and in the Central Provinces there was little more than half an average fall; but in Guzerat, the drought was mitigated, and there was a deficiency of only one-third the normal fall; in the Konkan, of fess than one-third; and in the Deccan, as well as throughout the greater part of the Peninsula, there was more or less excess. This was also the case in Lower Bengal, Sikkim, Assam and Arakan. In Pegu and still more in Tenasserim, on the other hand, the fall was deficient.

But one cyclonic storm is recorded by Mr. Eliot in this month, (No. 7 of his list), and this, both in its birth-place and track, followed nearly the example of its immediate predecessor, the 5th August storm. From the place of its origin, a little to the south of the Sandheads, it advanced to near False Point, and then curving more to north, passed through Chutia Nagpur into Behar, where it broke up.

Next, to consider the barometric features and those of the winds. The pressure anomalies of these months, and also the final months of the year, are given in the following table; and the isobars and baric isabnormals of the five monsoon months on Plates XV and XVI :—

*Geographical Summary of monthly pressure anomalies (in decimals of an inch) from June to December 1877.*

| Provinces. | Stations. | June. | July. | August. | September. | October. | November. | December. |
|---|---|---|---|---|---|---|---|---|
| North-Western Himalaya . . . | 2—3 | +·053 | +·022 | +·022 | +·044 | +·041 | +·039 | —·007 |
| Sikkim Himalaya . . . . | 1 | +·031 | —·002 | —·002 | +·019 | +·037 | +·031 | +·010 |
| Punjab Plains . . . . . | 9 | +·068 | +·012 | —·013 | +·026 | +·061 | +·018 | —·014 |
| Gangetic Plains . . . . . | 11 | +·046 | +·012 | —·019 | +·021 | +·055 | +·007 | —·005 |
| Sind and Guzerat . . . . . | 5—6 | +·054 | +·070 | +·040 | +·047 | +·039 | +·013 | —·013 |
| Eastern Rajputana and Central India . | 5—6 | +·041 | +·053 | +·021 | +·050 | +·039 | +·018 | —·017 |
| Nerbudda Valley . . . . . | 3 | +·042 | +·070 | +·024 | +·056 | +·031 | +·016 | —·027 |
| Chutia Nagpur . . . . . | 1 | +·039 | +·040 | —·016 | +·048 | +·062 | +·028 | +·004 |
| Lower Bengal . . . . . | 6 | +·035 | +·024 | —·036 | +·050 | +·071 | +·027 | +·006 |
| Assam and Cachar . . . . | 3 | +·035 | +·003 | —·035 | +·055 | +·071 | +·030 | +·004 |

*Geographical Summary of monthly pressure anomalies (in decimals of an inch) from June to December 1877*—continued.

| Provinces. | Stations. | June. | July. | August. | September. | October. | November. | December. |
|---|---|---|---|---|---|---|---|---|
| Orissa . . . . . | 2 | +·037 | +·054 | —·013 | +·077 | +·070 | +·039 | —·004 |
| Central Provinces South and Berar . . | 6 | +·042 | +·062 | +·019 | +·064 | +·052 | +·036 | —·011 |
| Konkan . . . . . | 2–3 | +·041 | +·081 | +·050 | +·040 | +·032 | +·037 | —·014 |
| Malabar . . . . . | 1 | +·045 | +·016 | +·024 | +·024 | +·061 | +·031 | —·009 |
| Deccan and Mysore . . . . | 6—7 | +·037 | +·061 | +·035 | +·039 | +·045 | +·043 | —·004 |
| East Coast and Carnatic . . . | 7—8 | +·048 | +·042 | +·036 | +·052 | +·068 | +·052 | +·006 |
| Arakan and Pegu . . . . . | 6 | +·026 | +·026 | —·013 | +·089 | +·070 | +·056 | +·014 |
| Tenasserim . . . . . | 2 | +·035 | +·031 | +·011 | +·085 | +·069 | +·037 | +·002 |
| Bay Islands . . . . . | 2 | +·036 | +·034 | +·029 | +·047 | +·064 | +·046 | +·011 |

In June, the pressure remained as much above the normal average as in May; even more so on the Himalaya, and also on the south of the Peninsula; while it remained about the same on the Punjab and Gangetic plain, in Sind and Guzerat; and the excess diminished across Rajputana, Central India, Chutia Nagpur, Orissa and Bengal. Conformably to this change, northerly winds became again more frequent, and indeed unduly preponderant at nearly all stations in Northern and Central India, and remained so in the Konkan and Western Deccan. And the excess of westerly winds along the south of the Gangetic plain, and on the plateau between it and the Satpuras, which had characterized May, continued as far down as Benares, and, together with north-west winds, greatly preponderated at Hazaribagh.

In July the abnormal excess of pressure disappeared on the Sikkim Himalaya, and nearly so in Assam, and decreased on the North-West Himalaya, the Punjab, Gangetic plains and Bengal, and also in Malabar. But it became exaggerated in Guzerat, the Nerbudda region, the Konkan, (where it was doubled,) and across Central India and the Central Provinces to Orissa. It was now at its maximum in Kathiawar, declining in all directions around. The effect of this anomaly on the general scheme of pressure distribution, as well as the anomaly, in all its local variety, is shown on the chart on Plate XVI, in the crowding together of the isobars to the north and east of Kathiawar and their greater openness in the west of the Peninsula. The corresponding features of the winds were the continuance of dry hot westerly or north-westerly winds throughout North-Western India, diurnal winds of high velocity, such as are usually restricted to the spring months. The easterly current, which usually holds possession of the Gangetic plain, predominated only up to Patna; and even in the Gangetic delta and Arakan, westerly winds were unduly frequent. At Delhi, the winds were persistently from the north-west; and at Sirsa and Agra east winds were scarcely felt. Northerly winds increased on the Satpuras, at Seoni, and to the south of them, at Akola and Poona. At Belgaum, as in 1876, the direction was steadily and undeviatingly west; at Sholapur, almost equally so, south-west; and at Secunderabad chiefly west, more frequently varying to north-west and less to south-west than in ordinary years. In Southern India gene-

rally the winds were below their average strength. Such were the conditions when the drought was most general and intense.

In August, an abnormal excess of pressure was only partial, being restricted to the North-West Himalaya, (where however it was not less than in July), to Sind, Cutch, Guzerat, Rajputana, and the Nerbudda region, together with the Peninsula, and it was still greatest in Kathiawar. All over North-Eastern India and in Arakan, the pressure was more or less below the average, and most so in Lower Bengal and Assam. The resulting modification of the normal scheme of pressure was somewhat similar to that of July, already noticed, and may be seen on comparing the August chart on Plate XVI with the normal chart for the same month on Plate V. The corresponding peculiarities in the winds were the continued undue preponderance of north-west winds at Sirsa and Delhi, and of west winds at Agra. But the easterly wind of the monsoon penetrated further up the Gangetic valley, particularly along the northern margin, and south-east and east winds were more than unusually frequent at Benares, and east winds at Patna. The undue frequency of north-west winds at Calcutta and Hazaribagh, and of west winds at Cuttack, was the necessary accompaniment of the numerous storms formed at the head of the Bay, and already noticed. The great frequency of north-west winds at Akola and Seoni was probably determined by similar conditions. At Poona, north-west winds were unusually frequent, and north-east winds, (a very unusual direction in this month,) formed an appreciable element of the wind register. At Bombay, north-west winds were more than usually frequent, and at Belgaum the winds were still persistently from the west. In the east of the Bay of Bengal, the monsoon had a similar tendency, accounting for the heavy rainfall of the Burmese peninsula.

In September, a general excess of pressure was re-established. On the North-West Himalaya it was doubled; but the Sikkim Himalaya, although the anomalous increase was about the same, remained a region of relative depression. On the Gangetic plain, and even in the Punjab, it was but little greater. In Western India, Guzerat ceased to be the seat of the maximum excess, which, as regards India, was now transferred to Orissa, and it was not much less in the Central Provinces. It was, however, still greater in the Burmese peninsula, especially Arakan and Pegu; and it may therefore be inferred, as almost certain, that the north of the Bay of Bengal was included in the area of maximum excess. The barometric minimum in the north-west of the Bay, which is a normal feature of the pressure distribution in September, was therefore obliterated, as is shown on the chart on Plate XVI. As far as regards the anomalous features of the pressure, the conditions of the earlier months were thus to a certain extent reproduced. In the Peninsula, the least excess was on the Malabar coast, where it was less than half as great as in the Carnatic. The concurrent features of the winds were the persistency of dry west winds down the Gangetic valley and in the Punjab; a similar undue westing in the winds of Bengal and the head of the Bay; and an undue frequency of easterly elements at nearly all stations in the Peninsula; especially of south-east winds at Masulipatam and Secunderabad; thus accounting for the excess of rainfall in this part of India, and the deficiency of Tenasserim.

The most striking meteorological peculiarities of the monsoon season of 1877 may thus be summed up. In respect of rainfall, there was an entire failure of the usual precipitation over the whole of North-Western India, and in July over nearly the whole of India

proper. In August, the drought was less general in the Peninsula, and in September it disappeared ; and while rain was still withheld from Northern India, it fell in more than usual abundance to the south of the Satpura range. It was also more abundant than usual in the Eastern Peninsula, up to the end of August; in June only in Pegu and Tenasserim, but in July and August more particularly in Arakan. In September, however, when the precipitation became excessive in the Indian peninsula, Pegu and Tenasserim, and particularly the last, had a deficient rainfall.

In respect of atmospheric pressure, an excess prevailed throughout; except, indeed, temporarily in North-Eastern India in August. In May, a ridge of relative excess had been established across Central India, having a maximum in Guzerat. This was most developed in July and lasted till the end of August, when the seat of maximum excess was transferred to Pegu, Arakan, the north of the Bay and Orissa; and two minima appeared, one over the Central Himalaya and the Gangetic plain, the other on the Malabar coast. It may be noticed that this ridge of abnormal excessive pressure approximately coincides in position with the normal ridge of maximum pressure in the winter months, being only a little more southerly; that it modified the normal distribution of pressure, in such manner, as somewhat to assimilate the latter to that usually characteristic of the spring months in Western and Central India. Further, that the concomitant modification of the winds was the substitution of west or north-west winds in Northern India for east and south-east winds; or, on the Central Indian plateau, where west winds are most prevalent even in the monsoon, to render these steadier than usual, and to increase their rate of movement; while, throughout Northern India, they had the hot dry character, characteristic of the spring land winds. The anomalous characteristics of the summer monsoon season of 1877, in Northern India, may therefore be summed up by saying that they consisted in a prolongation of those of the normal spring or hot season.

A very noteworthy feature of the season was the persistency with which the little cyclonic storms, formed at the head of the Bay, followed a northerly or north-north-westerly instead of the more usual west or west-north-west course, and thus gave heavy rain to the Gangetic delta and Arakan, while it was withheld from Northern Bengal and all the region to the west. This northerly course is shown by Mr. Eliot's charts to be that characteristic of the transitional seasons, (the spring and late autumn) rather than the months of the summer monsoon. In July no such track is recorded; and of the five tracks which are shown on the August chart, four are those of the 1877 storms already noticed, while the fifth is that of August 1880, of which I wrote in the report on the meteorology of that year, "that it was a conspicuously dry month in India;" "the last half of the month was almost rainless in the greater portion of Northern India, and dry westerly winds set in, which recalled for the time the disastrous seasons of 1876 and 1877, and served to justify the most gloomy forebodings." There would appear then, to be something more than a fortuitous concurrence between seasons of drought in North-Western India and the northerly tracks of the Bay cyclones across Bengal.

The anomalous modification of the pressure distribution of September, *viz.*, a maximum of anomalous excess across Central India and in the Burmese peninsula, with a minimum on the Malabar coast, is such as would, almost of necessity, coincide with an unusual tendency of the Bay branch of the monsoon to recurve to the west across the Peninsula, and thus give it the excess of rain actually recorded. In like manner the fact

of another relative minimum to the north, over the Sikkim Himalaya and the Gangetic plain, would almost necessarily be concomitant with westerly winds of unusual steadiness in Northern India. I speak at present merely of these phenomena, as being necessarily coincident, without any reference to the character of their relation. This point I reserve for further discussion in the sequel.

I now proceed to notice the remaining months of the year. The rainfall of October exceeded the average throughout the peninsula; excepting in Orissa and the Northern Circars, where there was a deficiency of nearly one-half; the chief excess being on the west coast. There was also more than an average fall on the North-West Himalaya, in the Punjab, the Gangetic plains, the eastern division of Rajputana, Central India, and Behar; the fall being more than half as much again in all the more western of these provinces. On the other hand, in the most eastern provinces, *viz.*, Western and Lower Bengal, Sikkim, Assam, Arakan, and, as already remarked, Orissa, there was a deficiency varying up to three-fourths of the normal fall. It was greatest in Sikkim. It extended to Tenasserim, but did not include Pegu.

An excess of atmospheric pressure was as universal in October as in September; and, on the whole, even somewhat greater; and its relative distribution in different parts of India not very different. It was greatest, and almost equal, over the eastern half of the area, Assam, Arakan, Pegu and Tenasserim, Bengal, Orissa and the east coast of India; therefore probably over the Bay. And it was nearly as great in the Punjab on the one hand, and in Malabar on the other. On the Himalaya it was less, but there was but little difference between the eastern and central parts of the mountain zone. The smallest excess was in the Konkan, the Nerbudda region, Rajputana and Sind. The tendency was, therefore, to favour easterly winds in Northern India and westerly winds in the south of the Peninsula; in general terms, a cyclonic circulation around the seat of minimum excess. Such was in fact the case; and hence the unusual rainfall of North-Western India and the Peninsula, while the vapour-bearing winds were in a great measure withdrawn or had but little convective motion in the region of most excessive pressure in the north-east and east. The occasion of the unusual rainfall of North-Western India was the formation of a cyclonic storm somewhere off the Gulf of Cambay, which then advanced in a north-north-east direction towards Ajmere, and apparently turning westward disappeared in Western Rajputana.

In November, there was unusual and heavy rain on the hills and plains of the Punjab, heaviest in the extreme north of the province, where it varied from 8 to 13 inches at different stations. There was little or none over the remainder of Northern India or the greater part of the Peninsula; but the rainfall was more than usually copious in the south of the Carnatic, and also in Arakan. At the Bay Islands, however, there was a deficiency of one-third of the normal fall, thus reversing the conditions of the previous year. The rain in the Punjab appears to have been the result of one of those cyclonic whirls that, in the cold season, sometimes appear in the western desert, and, as in the present case, seem to originate there.

The atmospheric pressure remained everywhere excessive during November, although less so than in October. The greatest excess was over the Bay, as is shown by the observations of Arakan and Pegu; and in the east coast of India. It was least in the Gangetic plain, and was but little greater in Sind and the Nerbudda region. On the

Himalaya it was considerably greater than on the plains. The winds of North-Western India were very steady from the north-west, and rather more northerly than usual. They are also more easterly in Chutia Nagpur and Lower Bengal. In general, throughout India, they were very light.

December was a rainy month over the greater part of India. In the Punjab, especially on the northern hills, the fall was extraordinarily heavy, and very considerable in the North-West Provinces, on the Rajputana and Central India plateau, the Central Provinces, Berar, Khandesh and the Deccan; and the rain extended, though in diminished quantity, to Behar, Bengal, and Assam. Only in Arakan, Pegu, Orissa and the northern districts of Madras there was no rain. This rain, in Northern India, appears to have accompanied disturbances of the usual character, characteristic of the cold season, (*ante* p. 87); that in the Deccan to a cyclonic circulation around a temporary depression on the coast of the Konkan, where there is always a tendency to a low pressure at this season.

It will not be necessary to notice, at any length, the other meteorological features of the month. The excess of atmospheric pressure which had prevailed without interruption, otherwise than locally since the beginning of the year, now almost disappeared; a slight remnant remaining only in the east of the Bay and in the Burmese peninsula, in Assam and Bengal, including the Sikkim Himalaya; while, as in the previous months, a relative depression occupied the Konkan, Guzerat, and the Nerbudda region. Hence the tendency to southerly winds, the invariable precursors of rain in the Peninsula, and easterly winds in Northern India.

*The year 1878*:—On grounds very different from those on which the meteorology of 1876 and 1877 challenges attention, that of 1878 is not less remarkable. It had, on the average of the whole Indian area, the heaviest rainfall of the last 20 years; and yet, so retarded were the summer rains in Northern India, that, for some weeks, it seemed as if the plains of the north-west were doomed to a second season of drought and agricultural disaster. In the Gangetic plain and on the plateau to the south, there was, indeed, some deficiency on the average of the year, notwithstanding the raininess of the cold weather, of some of the spring and the later summer months; and, in the Burmese peninsula, a much larger deficiency; but in Guzerat this was the wettest year on record; and, with the exception of the Carnatic and the Central Provinces, where there was only about the normal amount, or but little more, the whole of the Peninsula received from 20 to nearly 40 per cent. more than an average fall. The anomalies of the distribution are shown in the third chart on Plate XI.

The rain of January was above the average in the North-West Provinces and Behar, in Northern Rajputana, the Eastern Punjab, and the North-West Himalaya. This was mainly due to the formation of a barometric depression in the Deccan, Khandesh, and Berar, to the north-east of which the fall was heavy. At the beginning of the month there was rain in Bengal, the result of a travelling depression, which had appeared in the Punjab at the end of December, and moved gradually eastwards; and near the end of the month, another similar depression made its appearance in the extreme north of the same province and travelled eastwards, like its predecessor. Heavy rain also occurred in the southern half of the Carnatic, but there was no other rain in the Peninsula.

February was very rainy in Baluchistan and the Punjab, especially on the hills; but there was less than the average over most other parts of Northern India, excepting Assam

and Cachar; and, excepting in the Central Provinces south of the Satpuras, scarcely any fell in any part of the peninsula.

March was a dry month, with a high temperature. In the Punjab and North-West Provinces, except on and near the hills, there was scarcely any rain, and, excepting in the Northern Circars and the southern portion of the Western Ghâts, the peninsula was almost equally rainless. It was the same in Burma. In April however there was much more than the usual amount of rain on the North-West Himalaya, the Punjab and the North-West Provinces and Oudh, and also very generally in Behar and Bengal, but not in Orissa. In the Central Provinces and Berar, there was a good average; and there was very general rain in the Deccan, which is hardly usual in this month. In many parts of Madras too, including the Northern Carnatic, Bellary, and Mysore, there was rather more than usual. But in Burma and at the Bay Islands, there was either no rain or less than the usual amount.

May was equally rainy, or even more so. In nearly all parts of the Punjab, and especially on the Himalaya, the average was largely exceeded; in many places more than doubled; and there was more or less excess all over the Gangetic plain, Rajputana and Central India, the Central Provinces and Western Bengal; also to some extent in Guzerat. In most other parts of Bombay, there was either no rain or less than an average; and in Madras, though there was more than usual in the Godavery districts, those south of the Cavery and in South Canara and Malabar, there was rather less in most other parts of the Presidency.

The snowfall of the season 1877-78 was unprecedentedly heavy in the mountains around Kashmir, as had been that of the previous season. To this, the following passages of a paper by Mr. Lydekker, published in the Journal of the Asiatic Society of Bengal, bear testimony :—

"Among the inhabitants of the Kashmir Himalaya, the winter and spring of 1877-78 will long be memorable on account of the enormous quantity of snow which then fell on their mountains and valleys; and still more on account of the grievous famine which followed this excessive snowfall. So excessive indeed was this snowfall, that no tradition or record exists, even amongst the oldest inhabitants, of anything approaching to such a fall.

"Early in the month of October 1877, snow commenced to fall in the valley and mountains of Kashmir; and from that time up to May 1878, there seems to have been an almost incessant snowfall on the higher mountains and valleys; the inhabitants have indeed informed me that, in places, it frequently snowed without intermission for upwards of ten days at a time. It is extremely difficult to obtain from the natives any correct estimate as to the amount of snow which fell in any place, but at Dras, which has an elevation of about 10,000 feet, I estimated the snowfall, from the native account, as having been from 30 to 40 feet thick on the level.

"The effects of this enormous snowfall are to be seen throughout the country. At Dras the well-built travellers' bungalow, which had stood, I believe, some thirty years, was entirely crushed down by the weight of the snow which fell on it. In almost every village in the neighbouring mountains, more or less of the log-houses have likewise fallen; while at Gulmarg and Sonamarg, where no attempt was made to remove the snow, almost all of the huts of the European visitors have been utterly broken down by the snow.

"In the higher mountains, whole hill-sides have been denuded of vegetation and soil by the enormous avalanches which have swept down them, leaving vast gaps in the primæval forests, and choking the valleys below with the débris of rocks and trees.

"As an instance of the amount of snow which must have fallen on the higher levels, we will take the Zoji Pass, leading from Kashmir to Dras, which has an elevation of 11,300 feet. I crossed this pass early in August last, and I then found that the whole of the ravine leading up to the pass

from the Kashmir side was still filled with snow, which I estimated in places to be at least 150 feet thick. The road, at that time, was carried over the snow up the middle of the ravine; the true road, which runs along one bank of the ravine, being still entirely concealed by snow. It seems to me quite impossible that even half the amount of snow, then remaining, could be melted during the summer.

"I heard subsequently from a traveller who crossed the pass on the 5th of September, that the road was then just beginning to get clear from snow, and that some of his loads were carried along it, while others were taken over the snow in the ravine.

"In ordinary seasons, this road on the Zoji pass is clear from snow some time during the month of June; if we refer to page 223 of Mr. Drew's 'Jummoo and Kashmir Territories,' we shall find that, in speaking of this pass, he says, 'About the beginning of June the snow-bed breaks up, and the ravine is no longer passable.'

"It is thus apparent that the road across the Zoji-la was not clear of snow during the past summer, until three months later than it is in normal seasons; while the ravine, early in September, was still filled with snow. I crossed the same pass in August 1874, and at that time there was not the slightest trace of snow to be seen anywhere on the pass, or in the ravine leading up to it. As another instance of the great snowfall, I will take the valley leading from the town of Dras up to the pass separating that place from the valley of the Kishenganga river. About the middle of August, almost the whole of the first-mentioned valley, at an elevation of 12,000 feet, was completely choked with snow, which, in places, was at least 200 feet in thickness. In the same district, all passes over 13,000 feet were still deep in snow at the same season of the year. In ordinary seasons, the passes in this district, which are not more than 15,000 feet in height, are completely cleared of snow at the beginning of August, except in a few sheltered ravines. During last summer, however, it was quite impossible that the snow could have even melted on the passes.

"Traces of this great snowfall were even to be observed in the outer hills in September, since at the end of that month, I saw a patch of snow resting on a hollow of the Haji Pir ridge above Uri, which is only a little over 9,000 feet in height. The Thakadar of this place told me that he had never before seen snow there after the beginning of June."

On the whole, notwithstanding the dryness of March, the precipitation of the cold weather and spring, from the beginning of November to the end of May on the North-Western Himalayâ, was the heaviest on record, exceeding even that of the previous season, and averaging double the normal amount. It was as excessive at Bannu, Kohat, and Peshawar as in Kumaon and Gurhwal, but not apparently so far east as Katmandu, at which station the fall was less than the average.

The barometric features of the spring months of 1878 are of much interest, inasmuch as, notwithstanding the remodelling of the general pressure distribution, which took place, as usual, with the change of seasons, and notwithstanding that the generally excessive pressure of the spring months gradually gave way to a generally deficient pressure towards the end of the rains, the peculiar distribution of the barometric anomalies, established during the spring months, continued with but little variation up to the end of the rainy season, and doubtless was intimately related to the characteristic distribution of the rainfall.

A series of eight charts, exhibiting these anomalies (in green lines), for the months March to October, is given on Plate XVII.

In March, the highest abnormal pressure on the plains of India was in the Northern Punjab, Assam, and Pegu; it was still higher at Leh, and the lowest abnormal pressure was in Kumaon and Gurhwal, on the hills; on the plains, around Seoni and Cuttack. But generally, North-Western and North-Eastern India, together with a large tract to the south of Orissa and Nagpur, had higher anomalies than Western and Southern India.

In April, the two regions of high anomaly in the north and east of India to some extent coalesced, on a rise taking place in that of Orissa, which obliterated the minimum of March; and a minimum was developed in the Southern Konkan and the Western Deccan. The differences, moreover, became exaggerated, and two seats of maximum anomaly appeared—one in the Lower Godavery, the other in Northern Bengal. Another important change was the fall of pressure at Leh, and in a less degree over the North-Western Himalaya generally, which apparently coincided with the recurrence of snow and rain on the mountain range and the plains of Northern India.

In May, there was but little change of importance, except the disappearance of the high barometric anomaly in the Burmese peninsula, and the development of a small minimum in the Nerbudda region, which lasted through this and the following month. Such was the state of things immediately antecedent to the rains.

Through June, dry north-westerly and north winds prevailed in the Punjab, and north-west and west winds down the Gangetic plain to Behar and across Chutia Nagpur; and, as a general rule, the rainfall of the month was remarkably low. In the Punjab, a few stations on and near the western frontier had rather more than usual, and there was a certain small excess on the Ghâts of Malwa. Otherwise, with these and a few unimportant local exceptions, drought was universal in North-Western India, both on the hills and plains. Even in Bengal, there was no general rain before the 24th or 25th; and both in this province and Assam, there was a general deficiency. In the Central Provinces, there was not more than half the usual amount, and in Berar not much more. In Bombay, except at a few stations in Guzerat and on the coast, there was a considerable deficiency. It was the same in Hyderabad, and, to some extent, in Bellary and Mysore; and in the Carnatic, except round about the hills, there was, as a rule, a deficient fall.

This temporary drought, following on the unusual raininess of April and May, was accompanied with a remarkable modification of the barometric anomalies; a modification, however, which lasted only till July, when the former scheme was re-established. In some of its features, this temporary phase of the barometric anomalies recalls their distribution in 1876; and still more does it resemble the pressure charts, which are sometimes constructed from the observations of a day following a spell of rain in Upper India in the cold season, when cold north-west winds sweep down from the western frontier.

The anomaly became high and uniform in the Indus valley region, while a general fall elsewhere, greatest in the Gangetic valley and the east of the Peninsula, produced a long trough of negative anomaly, occupying the Gangetic Plain and running down from Behar to Secunderabad, and thence to Madras.

In July, the drought came gradually to an end, but not at once. In the Punjab, rain became general about the end of the first week, and continued for about a week, when a break of from seven to ten days followed. As a rule, the rainfall of the month was very deficient; but there were some exceptions, chiefly in the west of the province. In the North-West Provinces, with a few exceptions at some of the more northern stations, the rainfall was below the average, especially in the south and east; and, in the western districts, there was rain only during the second week, and it was then suspended till the end of the month. The greater part of Rajputana and Central India, and the Central Provinces, north of the Satpuras, shared the prevailing drought. In Bengal, there was a slight excess in Northern Bengal, and at a few stations on the Ganges; but most of Behar and

the greater part of the delta, especially the coast, had a deficient fall; and in Orissa and Chutia Nagpur, there was but little rain during the first three weeks. The Central Provinces south of the Satpuras, Berar, Khandesh, the Deccan, Hyderabad, and all the northern districts of Madras had either an average or a somewhat excessive fall; also in Guzerat and Sind; while, in the Konkan north of Ratnagiri, the fall was excessive; but on the crest of the Western Ghâts and in the Southern Konkan, it was greatly short of the average. This contrast is very remarkable, and the more so, that that portion of the Deccan, immediately east of the Ghât range, also had an excessive fall. In the southern districts of Madras, and in Coorg and Malabar, the fall was short; and there was a great deficiency in all the Burmese peninsula and at the Nicobars.

Many of these features of the July rainfall find their explanation in the occurrence of a somewhat remarkable cyclonic storm, recorded by Mr. Eliot as No. 9 of his list (loc. cit. ( ), which appears to have been generated in the Bay, about midway between Cape Negrais and the mouth of the Godavery, (an unusually southerly birthplace for a storm at this time of year). It probably dates its origin from the middle of the month, when, after a week or ten days' rainfall, drought again set in in the upper provinces, the rainy current being checked and diverted to the birth-place of the storm. It advanced on a west-north-west course to the coast of the Northern Circars, which it crossed on the 22nd, a little north of Vizagapatam, and then continued north-west to Raipur, which it reached in an enfeebled state. Then, gathering strength, it passed, due north, over Sutna on the 27th; and again reverting to north-west, passed through Rajputana nearly to Upper Sind, where it disappeared on the 30th, bringing the rainfall to the Punjab at the end of the month. With the ingress of this storm, the drought of Northern India came to an end.

It has already been remarked that, in July, the distribution of the barometric anomalies reverted to a system similar in its general features to that of April and May. This is represented on the fourth figure on Plate XVII. All Northern and Eastern India had a pressure above the average, with a maximum in Eastern Bengal. All the western half of India, from Ajmere southwards, had it below the average; and the greatest abnormal depression was along the west coast. Thus, in respect of the anomalous features of barometric distribution, India formed about half of a cyclonic system, tending to strengthen the flow of the Bengal branch of the monsoon across Eastern and Northern India. It may be observed that the course of the storm, above noticed, followed the same law with reference to the anomalous pressure distribution, as is well known to hold for their relation to areas of high and low barometer.

In August, as a general rule, the rainfall exceeded the average of the month; but there were exceptions, precisely in those provinces and districts in which the deficiency had been most marked in the two previous months. Generally in the Punjab, the fall was double the normal amount. In Rajputana, and the adjacent Central India States also, there was from one-and-half to twice the average; but in the eastern states and along the Jumna and Ganges, and in the Saugor and Nerbudda territories, the deficiency of the previous month continued, though in a somewhat mitigated degree. In the northern districts of the North-Western Provinces and Lower Bengal, there was generally an average. In the Central Provinces south of the Satpuras, Berar, all parts of Bombay, and especially Guzerat, and generally in the Konkan, there was a large excess; while Hyderabad and

the remainder of the peninsula and Ceylon had a fall up to, or above, the average. In Arakan and Burma, there was again a general deficiency, scarcely less than in July.

Four more or less definite cyclonic storms, with very slight barometric depressions, were formed either in Bengal or off its coasts during the month. Three of these travelled between west and north-west towards Central India, but apparently broke up before reaching the meridian of Nagpur.

Except that the pressure was generally more below the average (or less above it) than in July, the distribution of the barometric anomalies was of a similar character. The highest excess of pressure was in Eastern Bengal and Upper Assam, and greatest deficiency in the Upper Nerbudda or on the west coast. The isabnormals of the August chart, on Plate XVII, represent, as in July, a portion of a cyclonic system, favouring the influx of the Bengal branch of the monsoon to Eastern India and the Gangetic plains, and that from the Arabian Sea to the Nerbudda region and Guzerat. The conditions which favour the flow of the Bengal branch over India, of course withdraw it from the Burmese peninsula.

The September rainfall was, on the whole, either about the average or rather below it, in most parts of Northern India; except Guzerat and Assam, where there was a large excess. In the peninsula it was rather above the average, especially on the west coast.

Two cyclonic storms were generated over the Bay of Bengal and thence passed to the land. The first of these (No. 12 of Mr. Eliot's list) was formed about midway across the Bay, in latitude 19°, crossed the Orissa coast near Pooree, and then travelled on a west-by-north course right across India to Cutch, which it reached on the 7th day of its existence. This carried very heavy rain to Surat and Kathiawar, as well as to the north of the peninsula generally. The second, (No. 13 of the list,) originating also midway in the Bay, and a couple of degrees further south, took a course, almost due north, to Saugor Island, and thence on across the delta. This course is not unusual in the October storms.

The isabnormals of pressure, represented on the September chart of Plate XVII, show that the great abnormal depression of Western India, which had characterized the two previous months, was more concentrated, and centered in the Lower Nerbudda and Tapti region. Guzerat, which was the seat of an excessive rainfall, lies immediately to the north of this abnormal minimum—a fact of much significance. In Northern India, the band of relatively high pressure anomaly was now breaking up, and two independent depressions appeared, the one in the Southern and Eastern Punjab, the other in the Son basin. The deficiency of pressure, relatively to the normal average of the month, which had been only partial in the previous months, was universal in September.

October was, as usual, almost rainless in North-Western India, and in Bengal there was rather less than usual. But in the peninsula, excepting the Central Provinces and the Carnatic, there was more than an average fall, especially the North Deccan and Burma. Arakan also had more than the usual rainfall.

Two cyclonic storms were formed also in this month, but they were of little significance. Both seem to have originated in latitude 15°, not far from the mouth of the Godavery, and they followed the same west-north-west track across the coast near Bimlipatam, carrying rain to the interior of the peninsula.

The distribution of the barometric anomaly which had characterized the summer months had now almost disappeared. The pressure was even more below the normal than

in any preceding month, and there were three regions of greatest depression,—one running across the middle of the Punjab; another, the principal, occupying Oudh, Behar, Northern Bengal and Assam, and the whole of the north-east of the peninsula; the third, in the neighbourhood of Surat, is the residue of the minimum of September.

The November rainfall was excessive in the Northern Circars; generally rather deficient in the Carnatic; while there was an excess at the Bay Islands, especially the Nicobars. And December was generally rather a drier month than usual; except at Port Blair and on the Northern Circars, where the rainfall was excessive, owing to a cyclone.

In this year, then, a remarkably wet winter and spring (the wettest on record) was followed by retarded but, in the end, copious monsoon rainfall. During the month of June, however, the rains were almost entirely withheld, not only in the north-west but also throughout Northern India, and the greater part of the peninsula to boot. During this month of drought, dry land winds swept over nearly the whole of Northern India, through the Central Provinces to Orissa, and down the Western Deccan. Only at Belgaum, Secunderabad, and on the Orissa coast, were southerly winds in their usual, or more than usual preponderance.

At the same time, the pressure distribution, exhibited so strikingly in the June chart on Plate XVII, was essentially similar to that of June and August 1876 and the earlier monsoon months of 1877; combining, in fact, many of the characteristics of the two. This was a high positive pressure anomaly in Western India, and a negative anomaly in the east of the peninsula and the Gangetic plain. The relation of these modifications to the remarkable prevalence of north-west and west winds is too obvious to need pointing out; and the relation of westerly winds to drought has already been discussed in the first part of this paper.

In July, the scheme of pressure was again changed. The Gangetic plain and Punjab, and especially Eastern Bengal, becoming the seat of high positive anomaly, while that of greatest negative anomaly was transferred to the western coast of the peninsula. The rains then became copious, especially in Western India.

*The year 1879.*—This was a year of much less irregularity than any of its three predecessors. On the general average of all parts of the country, there was a certain excess of rain, and it was greatest in the North-West Provinces and Behar. As the fourth chart on Plate XI shows, there were two regions of deficient rainfall, *viz.*, the Indus region, including Sind and the Punjab and some parts of Rajputana (though these are not distinguished on the chart); and all the deltaic portion of Lower Bengal. Northern Bengal, (although not so distinguished in the chart,) had, like Assam and Sikkim, an excessive rainfall. All the central region and the peninsula had either an average or more than an average fall.

The last three months of 1878 had been almost rainless months in Northern India, and a similar absence of rain continued through the earlier months of 1879. In the Punjab, and on the mountains to the west and north, and also in the North-West Provinces, there was scarcely any rain in January, and but little in February. The atmospheric pressure on the Himalaya was rather above the average in January; greatly so at Leh, and the temperature remarkably high. At lower levels, all over the country, it was slightly below the average; and most so in Assam and Cachar, the Burmese peninsula and the south of the Bay, on the one hand; and on the west coast and in Southern India

on the other. Relatively then, India, although part of a more extensive area of deficient pressure, was a seat of higher than ordinary pressure at this season, relatively to the seas around, and to the land areas to east and west. There was a little rain in Rajputana, Central India, the Central Provinces, Hyderabad, Bengal, and Assam.

In February, the general pressure was still more deficient; next to the Himalaya, the deficiency was least in Assam, Chutia-Nagpur, and in the south-east of the Bay. This was most probably due to the drought and consequent increase of temperature.

In March a change took place. In the Punjab and on the hills, the weather was more cloudy and rainy than usual, reducing the temperature, and locally raising the pressure on the plains. On the Himalaya, the pressure was now generally deficient, (greatly so at Leh); but, on the plains, any anomaly was small over the greater part of North-Western India. There was a small excess in Sind, Guzerat, and Berar, and still less in Rajputana and Central India. But, in the Gangetic plain, there was a small deficiency, larger in Bengal and Orissa, and greatest in Assam and Cachar. It was considerable too in both peninsulas, where there was little or no rain. Under these circumstances, west winds were more than usually steady in the Gangetic plain, especially the lower half; and north-west winds, more northerly, and stronger and steadier than usual, in the Central Provinces.

April, again, was very dry. Very little rain fell in the Punjab, and that little only on the hills or near them. In Bengal, any rain was slight and partial only, and the remainder of Northern and Central India was to all intents rainless. In the south of the peninsula, there was more, but less than the average. In Burma, there was an excess in Tenasserim, and elsewhere but little.

The pressure distribution was as follows: about normal, on the Himalaya, in Sind, Guzerat, Rajputana and Central India, and the Deccan, and slightly above the average on the Malabar coast; everywhere else below the normal average; most of all in Assam and Cachar; whence the deficiency decreased westward and southward. While therefore, in most parts of the country, there was a greater deficiency of pressure than in March, chiefly due to the high temperature, the relative distribution of the anomalies was very similar.

May was almost as rainless as April in the Punjab, North-West Provinces and Rajputana; and in Central India the only rain of importance was in Malwa. In Bengal the weather was showery, but the rainfall was equal to, or above the average, only in the north, in the neighbourhood of the hills. Here, and in Assam, it was in excess. In the Central Provinces, Berar, and Hyderabad, it was excessive; and there was more than usual in the Konkan and Deccan. It was very heavy in the Northern Circars, and above the average in the northern districts of Madras. All this rain in the peninsula accompanied a cyclone, which, on the 21st, crossed the coast of Madras, and then traversed the peninsula (No. 18 of Mr. Eliot's list).

Owing in part to the excessive temperature prevailing in Northern India, the pressure was much more below the average than in April, and the depression was universal. On the Himalaya it was, indeed, only about the same as in March, and on the coast of the Konkan not much greater, while in the Burmese peninsula, it was considerably less than in any previous month. On the other hand, it was greatest in the Gangetic plain, the Nerbudda valley, Orissa, the Deccan and Malabar coast, and little more than half as great in the Carnatic.

Hence the whole winter of 1878-79 and the spring of 1879 were remarkably dry, on the hills, as well as on the plains. On the average of all the hill stations in the Punjab and Kumaon, the fall of the season was only 52 per cent. of the normal average, the smallest of the whole nine seasons here considered.

The monsoon rains set in steadily on about the usual date in Bengal, *viz.*, the 14th or 15th; but a fortnight earlier, on the last days of May, a small cyclonic storm of the monsoon type, (No. 19 of Mr. Eliot's list,) was formed near the head of the Bay, and advanced westward across the Balasore coast; thence passing to the north of Sambalpore, to Jubbulpore, where it gave very heavy rain on the Satpuras. No other definite vortex of this character was formed during the remainder of the month, but the rains seem to have spread quietly over Northern India, becoming very heavy in the Punjab on the last days of the month. In Bengal, the rainfall was heavier in the east than in the west. It was excessive in parts of the Punjab, Rajputana, and Central India, in the Gangetic Doab and Oudh, and quite equal to the average in the Central Provinces and most parts of the peninsula.

The distribution of barometric pressure in June, was almost exactly normal, except that it was rather low over the North-Western Himalaya and in the extreme west.

In July, there was excessive and very heavy rain, locally, in the western districts of the North-West Provinces, while in the surrounding provinces, the Punjab, Rajputana, Central India, and even the Central Provinces, Chutia Nagpur and Orissa, the rainfall was deficient. It was also deficient in the Konkan and the Western Ghats; and, with local exceptions, in all parts of the Bombay Presidency. In Madras, except in the northern districts and also in Mysore, it was above the average, and in the Burmese peninsula and at the Bay Islands not very different.

The heavy rain of the North-West Provinces seems to have been the result of a slight depression, formed originally over Bengal, and then transferred to the North-West Provinces; where it remained almost stationary for several days, determining that province as the seat of lowest pressure.

The pressure was above the average, except on the Himalaya and in the Punjab, and also on the west coast and all the peninsula south of the Godavery. The greatest excess was in Orissa and Chutia Nagpur; the greatest deficiency on the North-West Himalaya on the one hand, and on the Malabar coast on the other.

In August, the rainfall was very partial in the Punjab, but in the North-West Provinces generally above the average. There was again an excessive fall in Rohilkand and Northern Oudh; certain stations registering from 11 to 14 inches in the 24 hours. In Rajputana, Central India, and the Central Provinces, the fall was generally excessive; especially in Eastern Rajputana. Also in Northern Bengal, especially Purneah; but the remainder of Bengal had more or less deficiency; Orissa had a large excess. In Guzerat, Berar, and Khandesh there was an average or rather more, but very little in Sind. In the Konkan the fall was excessive; but in the peninsula generally either little more or little less than the normal fall. The distribution of the rainfall was, in a great measure, determined by three cyclonic storms of the usual monsoon type, all of which followed a west-north-west course; one from Balasore Bay, a second from near Gopalpur, and a third formed apparently in Western Bengal. One at least reached the Punjab.

The pressure was below the average, almost everywhere, save in Assam and Cachar; most in Sind and Guzerat, the Nerbudda valley, the North-West Himalaya, Rajputana and Central India, the Central Provinces south, and Orissa; that is to say, (except in the case of Sind,) along and around the tracks of the storms.

In September, the rainfall was again deficient in the Punjab; also generally in Rajputana and Central India and Oudh; but above it in the eastern districts of the Central Provinces. In Northern Bengal, at Purneah, there was the unprecedented fall of 35 inches in 24 hours—a fall never yet surpassed in our existing records, save only at Cherrapoonjee. Nevertheless, in Eastern and Southern Bengal, there was a certain deficiency. There was less than an average fall also, in most parts of the Central Provinces, (except indeed the Nerbudda valley and Raipur,) Berar, generally in Bombay, Hyderabad and the peninsula; except the Northern Circars and in Malabar. In Sind there was no rain.

There were again small cyclonic storms in this month; the first proceeded from the Ganjam coast, on a north-west course towards the Eastern Punjab, but broke up before reaching it. A second, formed apparently over Bengal, caused the phenomenal rainfall of Purneah above mentioned. A third moved westward from Balasore Bay towards Raipur, where it disappeared; and a fourth also westward, from False Point to the neighbourhood of Indore; where it diverged to north-west, and apparently broke up in Western Rajputana.

The pressure was, in general, below the average; although less so than in August. The depression was greatest in Orissa, and next thereto in Lower Bengal and on the North-West Himalaya. The exceptions, *viz.*, cases in which the pressure was either equal to, or slightly above, the normal average, were Sind and Guzerat, the Konkan, and the Central and Southern parts of the peninsula.

There was but little that was anomalous in the rainfall of October; that of the Central Provinces and some parts of the peninsula being more or less above the average, while others had less. There were two small storms formed during the month; both in the neighbourhood of Akyab. One of these moved almost due north towards Dacca; the other crossed the Bay to near False Point, and then recurving northwards, travelled to Behar, where it broke up. The pressure differed but little from the average. Nearly everywhere it was slightly deficient, and most so in Orissa and Chutia Nagpur.

November was dry and almost rainless in Northern India. In the Northern Circars, there was much more than an average fall, but in the Carnatic a slight deficiency. There was also a large excess on the littoral of Pegu and Tenasserim; but a deficiency in Arakan. The rainfall was in a great measure determined by the storms. One of which, formed in the Andaman Sea, travelled northwards to and across Pegu; and another crossed the Coromandel coast, north of Madras, moving to the north-west.

The pressure of November was very deficient over the Himalaya, especially the North-West Himalaya; and slightly so in Bengal and Assam, and in the south of the peninsula; and very decidedly excessive in Sind and Guzerat, and more or less in most other parts of Northern India.

The first rain of the cold weather fell in the Punjab, nearly at the end of December. It extended to the western districts of the North-West Provinces and Kumaon, and to some parts of Western and Northern Rajputana. Elsewhere, there was no rain of importance anywhere north of Madras; and further south, though excessive on the coast, most of the interior had less than an average fall. At the Bay Islands, on the other hand, the fall was double, or more than double, the usual amount.

The pressure was everywhere more or less below the average; most so, still, on the North-West Himalaya, and also on the Malabar coast. The deficiency was least, and about equal, on the plains of the Punjab and North-West Provinces, Rajputana and Central India, in the Konkan and the Central Provinces.

The year 1879 was therefore not one of pronounced meteorological features. An almost rainless winter and a very dry spring were followed by a seasonable and fairly distributed, but not very copious rain. In Northern India, there were some excessive local falls, but there were also certain districts in which the rainfall was more or less deficient. Several storms occurred during the monsoon; the earlier of which took a north-west course as far as the Central Provinces, or, in one case, Indore; the later a due west course, and finally (in October) a north course across Bengal. Several of these crossed the coast to the north of False Point. The pressure was either below the average, or only locally above it, throughout the year. Perhaps the most striking feature was that, throughout the latter half of the year, the greatest depression was over the North-West Himalaya, but there was but little precipitation, notwithstanding, except indeed at Leh in October.

*The year 1880.*—In the Report on the Meteorology of this year, the characteristic features of its rainfall have been summed up as follows:—

"The rainfall of 1880 was very deficient throughout North-Western and Western India and in Ceylon; and more or less excessive in most parts of Bengal and Assam, in the Carnatic and Mysore, and to some extent in the Burmese peninsula. Indeed, as a general rule, those parts of the continent which receive their chief rainfall from the Arabian Sea, had a fall more or less below the average, while those which depend mainly on the Bay of Bengal branch of the monsoon, had more or less excess; and this rule held good, independently of geographic position with reference to the Bay, and the local direction of the rain-bearing wind. Assam, Lower Bengal, Orissa, Arakan and the Carnatic, all show a strongly marked excess; although some of these provinces lie to the east or north-east of the Bay, and consequently receive their rainfall from the south-west, while others lie to the west of the Bay, and are reached by the vapour-bearing current from the east or north-east."

The anomalous features of the distribution are shown in the chart for 1880 on Plate XII. In Sind and Punjab, the rainfall was quite as deficient as in the previous year. In Berar and Khandesh, there was a deficiency of 30 per cent., which is greater than any other of the last twenty years, 1871 only excepted. In the North-West Provinces, it amounted to 28 per cent., equal to that of 1868, and surpassed only in 1877 and 1864. On the other hand, in the Carnatic, there was 20 per cent. more than the average fall; an amount which had been surpassed only in 1872, 1874, and 1877.

Like the corresponding season of 1879, the earlier months of 1880 were very dry in Northern India, as also had been the final months of 1879. In January, any rain in the Punjab was either restricted to the hills and their neighbourhood, or was slight and unimportant; and in Rajputana and the Gangetic plain, with similar exceptions, there was no rain. In February, there was more rain; more than the average, indeed, on the north-west Himalaya and the submontane districts of the Eastern Punjab, parts of Meerut and Rohilkand; but with these and one or two minor exceptions, there was less than the average fall; and it did not extend to Southern Rajputana and Central India. In Garhwal and Kumaon, as was reported by the Commissioner, General Sir H. Ramsay, the snowfall was unusually heavy and low; lower than it had been for many years. From other districts there were no special reports on this point. In Bengal, there was considerably more than an average fall, in nearly all parts of the province.

March was particularly dry. One slight shower at Murree and Abbottabad was the only rain recorded in the Punjab; and Rajputana, Central India, the North-West Provinces and Oudh were equally rainless. In Bengal, however, except in the more western districts of Behar, there was general rain; excessive in the northern and eastern districts, and in Assam. In the Peninsula, there was little or no rain, except in the Deccan; but there was more than an average in the north and east of Ceylon, and also in the southern part of Tenasserim.

In April, except in Burma and some parts of the south of India, drought was even more general than in March. In the Punjab, with insignificant exceptions, the only rain registered was at stations on the hills or near their foot; and at these it was much less than usual. In Rajputana, Central India, and most parts of the North-West Provinces and Oudh, there was no rain; and in Bengal the fall was everywhere below the average. In the Central Provinces and Berar there was no rain of importance; but, as in the previous month, there were showers in the Deccan and some parts of Hyderabad. There was rather more than usual in Mysore and Coorg, but in the Carnatic, with local exceptions, the fall was below the average; and in the northern districts altogether withheld.

In May, throughout the greater part of North-Western India, there were a few slight showers; but less even than the small average. Only on the hills, and in some parts of Oudh, there was a certain excess. In Bengal, on the whole, the fall exceeded the average; especially in the eastern districts; and in Orissa and Chutia Nagpur. But in Assam and Cachar it was deficient. In the Central Provinces and Berar, the Deccan and Hyderabad, there was less than usual. The Konkan, Sind, and Guzerat were rainless, or nearly so. In the remainder of the peninsula, with some local exceptions, the fall was below the average.

On the plains of India then, the winter of 1879-80, and the spring of 1880, were as rainless as those of the preceding year. But on the hills the precipitation, though below the average, was less deficient. On the mean of all the North-West Himalayan stations and Katmandu, it amounted to 81 per cent. of the normal average; and at certain stations, notably Simla, Chakrata, Srinagar, Pitharagarh, Champawat and Katmandu, there was a more or less considerable excess. The greatest deficiency was in the extreme north-west.

The pressure of these five months was below the average throughout India. This was in part, but only in part, due to the high temperature. In Northern India generally, the temperature of January was higher than the normal average; and except in Bengal, that of March and April remarkably so; the March temperature, at the hill stations of the Punjab, being 10° above it. That of May was also somewhat excessive in the Punjab. But the temperature of February was below the average, by 2° or 3°, in most parts of Northern India; and locally, in parts of Bengal and the Central Provinces, that of certain other months; nevertheless, the deficiency of pressure was universal and uninterrupted. Its differences, in different parts of the country, were much smaller than in such years as 1876 and 1877.

In January, in India proper, the abnormal depression of the barometer was greatest in Bengal and Orissa, and but little less in the Gangetic plain, the Punjab and Assam, and Cachar. It was still greater in the Burmese peninsula, and apparently throughout; and it was least in Ceylon, and but small in the Deccan, Hyderabad, and Mysore; also the

Konkan, the Central Provinces and Berar, the Nerbudda valley, and on the plateau to the north.

In February, it was greatest in the Punjab, Rajputana, and the Nerbudda region, and the Central Provinces; and least in Sind, Cutch, and Guzerat, on the one hand, and in Ceylon on the other.

In March it was still greatest on the plains of the Punjab, and next thereto in the Nerbudda region; while it was least, and indeed almost evanescent, in Assam and Cachar, on the east coast and Carnatic, and in Ceylon. It was very small also in the Burmese Peninsula and at the Bay Islands. At Leh, the pressure was very excessive, both in this and the following month; and in March slightly above the average, both at Murree and Chakrata. There was a little excess too in the Assam Valley.

In April and May, the anomalies were very similar, in kind and degree, to those of March, except that the depression in the Nerbudda region had disappeared; and in the latter month, at the hill stations of the North-West Himalaya, the pressure was below the average by about half as much as on the plains; and, even at Leh, the outstanding excess was small. In Southern India, and in the Burmese Peninsula, a deficiency of pressure was general in May, and greater than in either of the preceding months; but in Ceylon it was still insignificant.

The anomalous features of pressure distribution, established in May, underwent but little change in June, excepting that, in the extreme north of the Punjab, the abnormal depression was intensified; indeed, nearly doubled. At the same time, the general depression was slightly increased, so that, in all parts of the country, the pressure was below the average. As in May, the depression was least on the west coast, and over a band of country stretching across India somewhat obliquely, from the Gulf of Cambay towards Behar.

The rainfall, in this month, exceeded the average in the Eastern Punjab and the adjoining districts of the North-West Provinces, in Assam, Lower Bengal, and on the Orissa coast; also in the more northern districts of Madras, in Hyderabad and Mysore. Elsewhere, as a rule, it was below it. These differences seem to be related to the seats of maximum abnormal depression; inasmuch as the former lay on the eastern limb of the Punjab maximum, and the latter coincided with that to the north-west of the Bay, and the region to the north-east of it. On the other hand, the areas of least abnormal depression were those of deficient rainfall.

The rains set in very early in Bengal, *viz.*, on the 2nd June, in accompaniment with a small cyclonic storm, which had been generated at the head of the Bay on the last days of May. It moved northward across the delta to Northern Bengal, where it broke up. Another storm, formed at the head of the Bay on the 25th, followed a west by north course; crossing the Orissa coast near Pooree, and thence proceeding to near Jubbulpore, where it disappeared. In Bombay the rains began a very few days later than in Bengal, but the fall was very light up to the end of the month.

The second storm, above noticed, which occurred at the end of June, was followed by a considerable change in the scheme of pressure distribution, which had held for at least two months. There was a general rise (relatively to the normal or average phase) all over the country, and especially in the Indus Valley and the Eastern and Southern Punjab, which now (next after the coast of Canara) became the seat of the maximum abnor-

mal pressure. The seat of greatest abnormal depression remained in the Lower Godavery. But the local depression in the Northern Punjab also remained, and at Leh was somewhat greater than in June. This depression seems to have determined an excessive precipitation over the North-West Himalaya; and on a certain defined strip of the plains at their foot. It appears to have penetrated further than usual into the higher ranges; where it took the form of snow. Major Biddulph, then at Gilgit, wrote that the weather had been unusually stormy in Northern Kashmir throughout July, and that the rain and snowfall on the mountains were such as were unprecedented at this season. And, from Lahoul, the experienced resident missionary, M. Heyde, sent a similar report of excessive and unusual snow which destroyed large numbers of domestic animals.

Now, it is very noteworthy, that this unusual Himalayan snowfall was followed, in August, by drought, which, in the words of the official report, "recalled for a time the disastrous seasons of 1876 and 1877," and lasted from three to five weeks. During this period, dry westerly winds prevailed across Northern India, to an altogether unusual extent, and north-west winds in the northern part of the peninsula. The change in the distribution of pressure, as shown by the chart of its anomalies, is also very characteristic. The pressure was more generally above the average in August than in July, and more so; the greatest excess being in the region of Tapti and Lower Nerbudda; and there was a belt of relative depression (small negative anomaly) along the foot of the Himalaya and in Bengal, Assam, and Pegu; and another tract in the south-east of the peninsula. This distribution of the pressure anomalies, regarded as an independent system, forms a portion of an anticyclone, and would co-exist with westerly winds in Northern India and north-easterly (equal to a weakening of the normal westerly monsoon) in Southern India. And such was really the result.

The rainfall of July had been characterized by a certain general deficiency, diversified with local falls of unusual excess. The excessive precipitation on the North-West Himalaya has already been noticed. It was excessive, too, in Northern Rajputana, in some of the eastern districts of the North-West Provinces and Western Behar, in the hills of Mandla and Bilaspur, in the Central Provinces, and in the Northern Circars of Madras. But it was very deficient in Southern Rajputana, in the Gangetic Doab and Rohilkand, in Northern and Eastern Bengal, in the Satpuras of Seoni and Pachmarhi, and in Nimar and Northern Berar; as well as in Madras, south of the Godavery. In Burma, the rainfall was excessive in Tenasserim. Much of the heavy rainfall was determined by a storm, which, in the middle of the month, was formed near the Sandheads, (off the coast of Bengal,) and thence travelled westward and west-north-west to Bundelkand, where it broke up. Four stages of this storm are represented on Plate VI. Another storm was formed in nearly the same position, at the end of the month, and this also took a west north-west course across India to Western Rajputana; bringing excessively heavy rain to the Nerbudda Valley, Indore, and the neighbourhood of the Western Ghats. It broke up on the 10th; and then set in the drought and westerly winds, which continued uninterrupted till the end of the first or second week in September. Except in the somewhat restricted area of the excessive storm precipitation, just noticed, the deficiency of the August rainfall was very great and universal in Northern India; excepting the Gangetic delta and Northern Bengal, which last was the seat of excessive precipitation. The greater part of the Peninsula also had a very

deficient fall, almost the only exception being some of the coast districts to the south of Orissa.

There was a second storm in August, formed at the head of the Bay (No. 31 of Mr. Eliot's list) which, after crossing the Orissa coast near Balasore and proceeding to the north-west as far as Chyebassa, turned north and then north-east by east, breaking up near Purneah. It is worthy of notice that this northerly course, so unusual in August, is the same that was taken by storm vortices in the corresponding month of 1877, which, in so many respects, resembled August 1880.

The drought lasted only till the end of August in the northern part of the Peninsula; but a few days longer (varying up to the 16th September) in North-Western India. Nevertheless, September was, on the whole, a month of deficient rainfall; and, like July, characterized by local falls of unusual copiousness, one of which is of disastrous notoriety, as having brought about the catastrophe of the Naini Tal landslip. On this occasion (17th and 18th September) the rainfall on the plains of Rohilkand surpassed anything on record, save only at Cherrapoonjee, and the fall, already noticed, in September 1879, at Purneah, in Bengal. At Nagina, in Bijnore district, 32·4 inches of rain fell in 24 hours, and 8·6 inches in the preceding 24 hours, making a total of 41 inches in the two days. Two other stations, *viz.*, Dhanipur and Najibabad, registered nearly as much. This enormous fall, which, in addition to the destruction of Naini Tal, produced disastrous floods in the plains, was, in part, the result of a small cyclonic storm (No. 32 of Mr. Eliot's list) which was formed over the Bay of Bengal about the 13th, crossed the Ganjam coast on a west by north course, then, gradually curving to north-west, reached the neighbourhood of Neemuch; and then, diverging to north-east, apparently re-inforced a disturbance in Meerut and Rohilkand, in which heavy rain had been falling for a day or two previously. This was succeeded, a day or two later, by another little storm from the Bay, (No. 33 of the list,) which crossed the Balasore coast, and then travelled westward to the Central Provinces, where it disappeared, somewhere to the south of the Satpuras. There had also been a storm at the beginning of the month, which originated, not over the Bay, but in Chutia Nagpur, and advanced westwards to the neighbourhood of Saugor, where it broke up. All these storms brought more or less heavy rain to the Central Provinces, and here, therefore, the fall of the month exceeded the average. So also in Berar, Hyderabad, the North Deccan and Konkan, Khandesh, Guzerat, Cutch, and Lower Sind; but not in the South Konkan, and Deccan, nor in Madras (except the Northern Circars), nor Mysore, in all which provinces there was less than usual. In the Punjab and the North-West Provinces, except in the region of the storm above noticed, and conspicuously in Behar and the northern districts of Bengal, the rainfall was much below the average. At Julpigori and Purneah little more than one-fourth.

In this month, the dependence of the rainfall on the course of the cyclonic vortices, and the prevailing drought elsewhere, are very striking. The same thing had occurred in July, and to a certain extent in August. In fact, but for the storm precipitation, the whole season was dry, and August the driest month.

The pressure was less generally excessive. All that region in the Peninsula, over which the rainfall exceeded the average, excepting the Konkan and Berar and Khandesh, had a mean pressure, slightly below the average. The greatest excess was in the Punjab, the North-West Provinces and Oudh, and Northern Rajputana; but the excess was not very great.

In October, there was somewhat unusual rain in Rajputana and Central India. There was also a good deal of rain in the Central Provinces. The disturbance seems to have originated in a small cyclone, formed over the middle of the Bay, on the 12th of the month, which crossed the coast near Vizagapatam, and then moved north-westward to the Central Provinces. Its disappearance as a distinct vortex, about the 17th, was followed by a spell of rainy weather in the provinces above enumerated, which lasted nearly to the end of the month. In Bengal also, there was a good deal of rain, but not in North-Western India. The Madras rains did not set in till a few days after the usual date. Except on the coast, the fall was, however, considerably greater than usual.

In November, there was unusual rain on the hills, and the adjacent belt of plains of the Punjab, and over nearly the whole of the North-West Provinces and parts of Central India. This was the effect of barometric depressions, formed, in one instance, north of the Gulf of Cambay, in another in the Northern Deccan. In Behar and Orissa, there was also more rain than usual. In Madras, the rainfall was everywhere more or less excessive, and particularly so in the Carnatic. In the central and northern districts, it was more than double the average, being exaggerated by the rainfall of a small cyclone, which passed over Negapatam on the 21st (No. 35 of Mr. Eliot's list).

In December, there was a little rain in many parts of North-Western India, and snow on the hills, but not in any great quantity.

During these three months, the pressure was generally above the average, most so in the last two months; in October and November, the excess was least in the Carnatic and parts of the Deccan; in December on the Punjab plains and around the Gulf of Cambay; in both cases in the regions of the chief precipitation.

*The year 1881.*—On the mean of the whole area, this was a year of average rainfall, but by no means so in point of distribution. In January and October drought was universal, and very nearly so in February and December. But June, July, and August were, on the whole, rather rainier than usual. The excessive precipitation of these months was, however, not general, inasmuch as the west of the peninsula suffered considerably from drought; and the rainfall was chiefly restricted to the zone about the tropic, in which the two branches of the monsoon meet; and, as this lay somewhat further south than in most years, the rainfall of Chutia Nagpur, the Central Provinces, and Central India was increased at the expense of the North-West Provinces and Oudh, where there was a deficiency of about 7 per cent. In the peninsula, owing to the dryness of the earlier and later months, as well as of June and July, the deficiency was far more serious. In Malabar it amounted to 26 per cent., in Mysore and Bellary to 20 per cent., and in the Deccan and Hyderabad to 18 and 12 per cent. respectively. The greatest excess of rainfall was in Guzerat, but it was nearly as great in Sind and Cutch on the one side, and in the Central Provinces on the other.

As already remarked, January was very dry on the hills, as well as on the plains; and an excessive pressure was as general as in the two previous months, and not less in amount. In February the excess of pressure was less in Northern India, and in the Punjab had disappeared; but it remained equally great in the Peninsula and Burma, and was greater in Ceylon. There was a little rain in North-Western India; but, except in the north of the Punjab, less than an average fall. March, however, was a wet month throughout Northern India, and in some of the more northerly provinces of the peninsula, and it

is noteworthy that, although the pressure was, on the whole, more above the average than in February, this was the case only in Northern India. The greatest excess was on the plains of the Punjab and the Gangetic valley and in Bengal, and it diminished thence to the coasts of Sind and Kathiawar, and to two tracts (one in the Deccan, the other around Cape Comorin), where there was a slight deficiency of pressure; a distribution of the abnormal elements similar to that of November 1880 and which seems to be characteristic of rainy periods. The pressure was very deficient on the North-West Himalaya, especially at Leh.

In April, a drought was partially re-established, and the distribution of the abnormal features of pressure reverted to its previous condition, in so far that, notwithstanding that, on the whole, the excess was less, it became once more greatest in Kathiawar, the Satpura region and a portion of the peninsula, while, in the Gangetic plain, Bengal and Chutia Nagpur, and in Upper Sind, it fell below the average. This was only in part due to the high temperature, which locally accompanied the drought. The pressure remained unduly low over the North-West Himalaya; and here, at least to the north of the Patwar, the rain was excessive, as well as, to some extent, on the hills west of the Derajat.

May was also comparatively, though not conspicuously, a dry month, Oudh and Bengal being the only marked exceptions; on the hills of the North-West Himalaya there was about an average fall. Elsewhere it was below it. The pressure anomalies were small, slightly below the average on the plains of the Punjab, Bickaneer, and the Gangetic doab; and also in all the eastern portion of the peninsula, the Deccan and Hyderabad; slightly above it in Sind, Guzerat, the Nerbudda region, the greater part of the North-West Provinces, Bengal, and Assam; and also on the west coast and in Mysore. At the end of the month a small cyclone, (No. 36 of Mr. Eliot's list,) formed at the head of the Bay, travelled northwards across the Gangetic delta, and broke up in Northern Bengal.

Thus, while January and February 1881 were conspicuously dry months, November 1880 and March 1881 were more rainy than usual in Northern India, and especially on the North-West Himalaya; and the remaining months of the winter and spring also gave an average precipitation on the North-West Himalaya; April more than an average; but, on the plains, the fall was more or less deficient. As the result of the whole season, the precipitation on the outer North-West Himalaya and the western hills was 15 per cent. in excess of the average. In Beluchistan, (at least at Quetta,) there was an excess of 70 per cent.; owing chiefly to that of March and April, for none fell in May. Now, it is interesting to notice that, on the Bengal side, (as in 1880,) the rains set in unusually early, *viz.*, on the 2nd of June, with a small cyclone, (No. 37 of the list,) formed at the head of the Bay, within a day or two of that noticed above, and following a parallel track northwards across the delta; but on the Bombay side, although showers fell daily on the Konkan and Ghats, the rainfall was very light up to the last day of the month; and it was not until then, or the beginning of July, that the monsoon set in with its usual strength and copious rainfall. The western branch of the monsoon was therefore virtually retarded by at least three weeks. As in the monsoon of 1877 and in August 1880, so in the present month, the chief anomalous feature of the pressure was a band of relatively somewhat excessive pressure running eastward from Cutch and Kathiawar to the Satpura region, whence it continued through Bundelkand to Behar. On the mean of the whole of

India, the pressure was about normal; but it was somewhat lower than usual in the Punjab, Northern Rajputana, and Upper Sind, on the one hand, and, on the other, in Bengal, all down the east, and also over the south of the peninsula. It was probably deficient all over the Bay.

The rainfall of the month was more than usually copious in the Central Provinces and Berar, the southern and western districts of Bengal, part of Oudh, and the eastern and submontane districts of the North-West Provinces. In these provinces it was, however, interrupted by a long break of a fortnight's drought, following on the first three or four days' rain. This was also the case in the Punjab, Rajputana, and Central India; in which two latter provinces the fall was deficient. In Northern Bengal, and on the Sikkim Himalaya, it was equally deficient. This distribution was determined, mainly, by the course of the storm already mentioned, which ushered in the rains on the Bengal side; and two which followed it, the first immediately after, the second after an interval of some days, (Nos. 37, 38, and 39 of Mr. Eliot's list). The second travelled westwards to the Central Provinces and Bagelkhand, where it broke up; the third, like two of its predecessors, took a northerly course after crossing the coast near Balasore, traversed Birbhoom and the Sonthal country, and broke up under the Sikkim hills. The northerly course of three of these four storms, in June and the end of May, coinciding with the retardation of the Bombay monsoon, is noteworthy.

In Bombay, the rainfall was everywhere deficient. At Surat, and some stations in the Western Deccan, the drought was almost absolute; and in the Konkan and on the Ghâts, the fall was only from half to two-thirds the average. In the northern coast districts of Madras, there was an excess; but the rainfall of the Carnatic and Bellary plateau was less than the small average; and in Malabar and Mysore the rains failed almost completely.

In July the rains were more plentiful, but still somewhat irregular. On the plains of the Eastern Punjab and Rajputana, the western states of Central India, Guzerat, Berar and the Central Provinces (excepting in Saugor and Damoh), and in Orissa and Western Bengal, the rainfall was more or less excessive; but on the North-Western Himalaya, in Oudh and the eastern districts of the North-West Provinces, in Behar, and Northern Bengal and Assam, in the Southern Konkan, and all down the western coast, and more or less throughout the Peninsula, the rainfall was deficient; especially so on the Malabar coast and Mysore.

There were four definite cyclonic storms in July; two formed at the head of the Bay of Bengal, and travelling westwards to near Guna, in the one case, and to Bundelkand in the other; and one storm, which has been made the subject of a special investigation in the second volume of this periodical, which originated in Guzerat and broke up over Kathiawar, close to the place of its origin. The fourth storm was formed over Bengal, and took a west-north-west course right across India to the Derajat.

The distribution of pressure anomalies was very different from that of June. Of the ridge of abnormal excess across the Nerbudda and Sone region, only a trace remained in the valley of the latter river; and a large area of deficient pressure, around the Gulf of Cutch, marked the seat and birthplace of the Guzerat cyclone. In the Punjab and Upper Sind, the pressure, was excessive; and it was shown in the discussion of the Guzerat storm, that this high pressure probably played a certain part in the formation of the storm,

Over the greater part of the Peninsula also, the pressure was slightly above the average in July, and especially in Malabar.

Except partially in Hyderabad, and in the eastern districts of Bengal, and to the north of the Ganges, the rainfall of August was either up to the normal average or more or less exceeded it. It was emphatically a month of well distributed and abundant rainfall; the rain fell steadily and without marked interruption, and the distribution of pressure differed but little from the normal average; on the whole slightly below it. Two vortices are indeed recorded in Mr. Eliot's list, (Nos. 42 and 43,) but they both traversed India with remarkable rapidity, the one from the head of the Bay to Lower Sind, the other to Western Rajputana; and from this circumstance, it may perhaps be doubted whether they were not a series of storms, formed in rapid succession, one in advance of the other, rather than definite travelling vortices. According to the latter supposition, their average rate of translation must have been at least 15 miles an hour throughout.

In September the rains came to an end at a somewhat early date, and the rainfall of the month was below the average in nearly all parts of Northern India. The Gangetic plains and the plateau south of the river were swept by steady westerly winds, and these brought a somewhat excessive rainfall to Northern and Eastern Bengal and Assam, while the west and south of the province shared the dryness of Upper India. Once more we have, here reproduced, the phenomenon of a band of high pressure anomaly stretching across the Satpura region, with regions of abnormally low pressure both to north and south; the lowest being in the Northern Punjab, and due probably to the abnormal rise of temperature which followed on the early cessation of the rains.

One travelling storm in this month, (No. 44 of the list,) followed a westerly track, almost identical with two storms in July and August; *viz.*, from the Ganjam coast to the Nerbudda valley, Neemuch, and perhaps Western Rajputana. This also was of the same character as the August storms. It brought heavy rain to Lower Sind; but in the other provinces traversed by it, the fall of the month was below the average, except locally in some parts of the Central Provinces and Hyderabad. In the Peninsula, the fall of the month was generally deficient, except in the Carnatic and Mysore, where, as a general rule, there was rather more than the average, owing to frequent sporadic falls.

October was generally a dry month. Exceptions were the eastern districts of the North-West Provinces, Behar, with a portion of Western Bengal. This was due to a small cyclone, (No. 45 of the list,) which was formed over the middle of the Bay, crossed the Vizagapatam coast, and then passed almost due north towards Sambalpur and Behar.

The anomalous element of pressure distribution was that characteristic of dry months; a region of relative excess in Kathiawar and the Tapti-Nerbudda region, around which the isabnormals form an anti-cyclonic system, the greatest abnormal depression being in the Northern Punjab and the Derajat.

In Madras, the rainfall of the month was very deficient; a deficiency which told seriously on the annual total, as October is usually the first month of the heavy Carnatic rainfall. In the northern districts there was almost a complete absence of rain after the 6th or 8th, and in the southern after the 20th. The pressure was indeed generally below the average, but it was probably more so over the south of the Bay. The description of the wind anomalies of this month, given in the Report on the Meteorology of India in 1881,

is entirely in accordance with this view, and helps to explain the failure of the rainfall. As regards the Carnatic, the conditions, as will be seen, were similar to those of 1876. I quote the passage entire—

"The characteristic abnormal features of the winds in October were very similar to those of the preceding month, as were also the anomalies in the relative distribution of pressure; and are precisely such as might be anticipated from a consideration of the latter.

"These have been described, as a great deficiency of pressure in the north and east of the area, with a chief maximum depression in the Punjab; while, in the heart of India, and in the Konkan and Northern Deccan, it was of about the average amount. The result is shown very strikingly in the chart, Plate IV,[1] where it appears that this region of normal pressure about coincided with the seat of the absolute maximum—a result which is brought about, by the superposition of the above anomalies on the normal condition of almost uniform pressure, which is characteristic of the month of October. Consequently on this distribution, the winds of the Eastern Punjab, the North-West Provinces, Rajputana, Central India and the Central Provinces, Berar and the Deccan, formed a very steady anti-cyclonic system around the seat of maximum pressure; the directions being south-west or west-south-west in Western Rajputana, between west and north-west in the Eastern Punjab, Northern Rajputana, and the North-West Provinces; north or north by east at all the more elevated stations of the Central Provinces, at Indore, Malegaon, and Buldana; and also, but less steadily, at some stations in Lower Bengal and Orissa, and in the Godavery Valley; and almost north-north-east or north-east in the interior of the peninsula, at Sholapur and Secunderabad, and as far south as Bangalore. There is an apparent exception to this circuit in Cutch and Kathiawar, where the winds were more westerly and northerly than is easily reconcileable with the distribution of pressure shown on the chart, but they must evidently be influenced by the condition of the pressure over the ocean, and of this we have no knowledge. They indicate the existence of a higher pressure to the south.

"On the west coast, at Ratnagiri and all more southerly stations, the winds continued to blow, with very unusual steadiness, from directions between west and north-west. As in the previous months, the unusual prevalence of north-west winds at Cochin is very conspicuous.

"In the interior of the southern extremity of the peninsula, the winds were much more northerly than usual—a difference which is shown most conspicuously at Trichinopoly and Madura; and in Ceylon and at Negapatam, although south-westerly winds still predominated, (excepting indeed on the east coast of the island), they did so to a much less extent than usual. At Madras there was an unusual preponderance of easterly winds, chiefly north-east."

November was rainless in the greater part of Northern India, but the fall exceeded the average in most parts of the peninsula; exceptions being the districts of Tanjore and South Arcot, (in the Central Carnatic,) Ganjam and the Godavery delta. In Mysore the fall was double to treble the normal amount; and this was also the case at Port Blair; and in most parts of Burma and at the Nicobars, the normal fall was much exceeded. One cyclone occurred on the coast of Madras with disastrous consequences to the breakwater enclosing the Madras harbour. This storm, which is in many respects very instructive, has been noticed and illustrated in the third Memoir of Volume II of this serial; (page 82 and Plate X).

The atmospheric pressure of the month was everywhere below the average; most so in the south-east of the Bay, and least so along a belt, almost identical in position with that of June; crossing Northern India obliquely from the Gulf of Cambay to Northern Behar. Besides the region of greatest depression around the Nicobars, there were others of relative depression in the peninsula, *e.g.*, between Belgaum and Bellary, and around Raipur, as well as in the Carnatic. These may possibly explain the superior raininess of November, as compared with October, in the peninsula.

[1] Illustrating the report on the Meteorology of 1881.

Finally, December was very dry, rainless in the greater part of Northern India, and with less than the average amount throughout; except in two tracts, one of which included portions of Guzerat, Rajputana, and Central India, the other the central and southern districts of the Carnatic.

*The year 1882.*—This was a year of abundant and, for the most part, well distributed rainfall. Throughout the peninsula and Western India, the fall was more or less in excess of the average; and in Malabar and the Northern Deccan, to the extent of more than one-third. On the Punjab and the North-West Himalaya, there was about an average amount; and only in the Gangetic plain and Bengal and Behar, was the fall deficient, and even there to not more than from 7 to 10 per cent. In Assam, and the Eastern peninsula, there was either an average amount or somewhat more. This distribution is illustrated in the third chart on Plate XII. It bore some resemblance to that of 1878, and was, in many respects, the opposite of that of 1880. It was the western, or Bombay, branch of the monsoon that prevailed with the greatest strength; whereas, the Bengal branch, or at least that portion of it that is diverted westwards across Northern India, was feeble during the latter half of the rainy season; and the rainfall of those provinces, mainly fed by it, was therefore scanty.

It has been shown above that, the last four months of 1881 were very dry, indeed, for the most part, rainless in North-West India. Rain set in in the Punjab about the middle of January, and was repeated at the close of the month; and, in consequence, the rainfall of the Punjab, excepting the Derajat, was generally in excess of the average of the month. It is noteworthy that the occasion of both of these falls, as well as of such rain as had fallen in December, was the formation of barometric depressions, either in the neighbourhood of the Gulf of Cambay or on the plateau of Western India. The rain attendant on them was therefore restricted to the plains and the outer hills; and there does not appear to have been any snowfall of importance. At Leh there was scarcely any before the last days of the month. The atmospheric pressure was high throughout India, as indeed it had been in December; and especially in the Nerbudda and Satpura region, and in Kumaon and Gurhwal, the greatest excess being in the Satpura region. Southerly winds were very frequent in Northern India, accompanied with a high temperature.

In February, the rainfall was below the average, and the second half of the month was rainless in the north-west. The rain was pretty general, and chiefly fell in consequence of a great depression, formed over Northern India, and concentrated in two minima; one in the Punjab, the other in Chutia Nagpur. The excess of pressure, that had prevailed in December and January, had disappeared; and in nearly all parts of India, the mean pressure of the month was lower than usual; most so in the Himalaya. The deficiency in the eastern half of India was rather greater than in the western half.

March was even drier than February. Some slight showers only fell on the hills of the North-West Himalaya, but the greater part of the Punjab plains were rainless; as indeed were all other parts, save Bengal and Assam, in Northern India, and Dharwar, Mysore and the Southern Ghats in the peninsula. In Ceylon and Burma, also, there was very little rain.

The anomalous features of the pressure distribution were, 1st, a slight excess of pressure over nearly the whole of India, excepting the Gangetic plain, Bengal, Assam, and

the Eastern Peninsula, and the basin of the Mahanadi in the east of the Indian peninsula, the greatest excess being in the Indus Valley and Rajputana, favouring the north-west winds, which in consequence were more than usually prevalent throughout Northern India. But there was a stronger indraught of southerly winds, than usual, to Bengal and the Mahanadi region.

April was also dry, but in the Punjab less so than March. At some stations in the west of the province, the fall exceeded the average; but there was no rain in Rajputana, Bombay, Berar, the greater part of Central India, and half of the North-West Provinces and Oudh. Elsewhere, except in the eastern districts of the Central Provinces, the Central Carnatic, and Burma, there was less than an average fall.

The pressure was almost everywhere slightly below the average of the month, and equally so; there being but a slightly greater depression, on the one hand, in Lower Sind and down the Western Ghats, and, on the other, in the south-east of the Bay, than elsewhere; also on the North-Western Himalaya.

In May, there was a little more rain. The Punjab had a deficiency, Rajputana and Central India about an average amount. In the Gangetic plain, there was a slight local excess in Rohilkand and the Dun; but in Bengal there was more than usual, except in the northern districts. In the Central Provinces and Berar, there was less than an average, and also in the north of the Carnatic; but a certain excess in the southern half and Mysore. The pressure was, in general, slightly above the average; most so in Behar and Gorakhpur; but in the southern half of the peninsula, and in Sind and the Central Punjab, there was a small deficiency. The differences were, however, slight. The whole interval, from September to May 1882, was therefore comparatively a dry season. As regards the North-West Himalaya, the rainfall, and probably therefore the snowfall, was indeed greater than that of 1878-79, but less than that of any other of the seven years preceding; and most of this fell, either in January and February, or in April. May was generally a dry month on the hills.

The rains set in on the Bombay coast on the 2nd June, and speedily penetrated to the interior. On the Bengal side, the early part of the month was showery, but heavy rain, indicating the setting-in of the monsoon, did not occur before the 11th. Both these dates were, however, rather earlier than the average.

In the Punjab, and indeed all over North-Western India, there was a general fall of rain, simultaneously with the setting-in of the rains in Bengal; but during the latter part of the month, only sporadic showers; and the total fall of the Punjab, and all the northern states of Rajputana was more or less deficient.

In the North-West Provinces, and especially in the southern districts, in the eastern and southern states of Central India, and in that part of Rajputana that borders on Guzerat, in Berar, and the Central Provinces, there was an excessive fall. This, in all the more eastern provinces, was due to the storm which ushered in the Bengal rains. It was formed in the neighbourhood of Calcutta, and travelled thence westwards to Hazaribagh, and afterwards to Benares and Bundelkand. It brought to Rewah on the 16th, the remarkable fall of 30·45 inches within the 24 hours, and at Sutna of 22·15 inches, falls only surpassed by that of Purneah in 1879 and of stations in Rohilkand in 1880. Only Southern and Eastern Bengal shared the heavy rain brought by this storm; the north of the province and Assam had a deficient fall. In the Konkan and Deccan, there was

little rain while this storm was in existence; but in the earlier part of the month, the precipitation had been excessive, and in the southern half of the presidency the fall of the month exceeded the average. In the northern districts there was, however, but little rain.

The pressure was in general a little below the average, but not greatly so, except in the Punjab. The deficiency was least in Behar and the south and south-west of the peninsula. The northern half of the peninsula, and the whole of North-Western India, were relatively a region of abnormally lower pressure on the one hand, and Assam and Pegu on the other.

In July, the rainfall of Bengal, Assam, and the eastern half of the North-Western Provinces was very deficient; but throughout North-Western, Western and Central India, that is to say, the western area of abnormally low pressure in June, there was an ample, and in most cases an excessive precipitation. This was chiefly brought about by three cyclonic storms, formed near the Sandheads, and following very similar paths, in a west or a west by north direction; the first as far as Seoni in the Central Provinces, the second to Upper Sind, and possibly Beluchistan, and the third to Ajmere.

The pressure anomalies were of the same type as in June, in so far, that a band of maximum abnormal depression lay across the northern half of the peninsula; but a region of minimum was developed in its eastern half around Sambalpur, and in the Punjab the pressure rose above the average.

The heavy rain in North-Western India, in July, was followed in August by a prolonged break of a fortnight, during which no rain of any importance fell in Rajputana, and scarcely any in the Punjab and Central India, or in the western districts of the North-West Provinces, bordering thereon. In Western India also, a deficiency was very general in the Konkan and Deccan. In Guzerat, the rainfall was very light and interrupted. In the Central Provinces and Berar, there was unusual deficiency, and to a less extent also in Hyderabad. The region of drought was therefore identical with that of July and August 1877, and of August 1880; but its duration was less. It was attended by similar variations of the winds, and, as will presently be shown, of the distribution of pressure. On the Gangetic plain, easterly winds gave way to those from the opposite quarter, and ceased to preponderate further west than Patna and Gorakhpur. At the same time, in Western Rajputana, and on the plateau as far as Neemuch, south-west winds were remarkably steady; and they were also very prevalent in the Punjab, as far east as Sirsa. On the Konkan coast, west winds were abnormally steady, but had lost much of their force; and northerly elements were more frequent. At Sholapur, north-west was the predominant direction. The distribution of pressure anomalies that had prevailed in July, underwent a total change of character. A ridge of maximum excessive pressure was established across India from the Gulf of Cambay, along the Satpuras, and down the Son Valley to Behar; and, with an exception around Raipur and Sambalpur, the Punjab and Indus Valley, and Rohilkand and Meerut, all India north of the Kistna Valley up to Northern and Eastern Bengal, had a pressure above the average.

As in some previous droughts of the same character, the rainfall of Northern Bengal and the Sikkim Himalaya was very heavy, being fed by the westerly winds, which had swept North-Western India. But the south and west of the province had a certain, though not great, deficiency. In Madras, the fall was rather above the average of the month.

Two travelling cyclonic storms occurred in this month; the first immediately before, the second immediately after, the period of drought; and the peculiar distribution of atmospheric pressure, which characterized the drought, followed on the one and broke up on the advent of the other. In the interval, one or two little vortices were formed in Bengal, but none of them travelled westwards. The first of the two storms was formed at the end of July, crossed the Orissa coast near False Point, and broke up in Bundelkand on the third or fourth of August. The second was formed off Saugor Island on the 18th, and on the following days, proceeded on a west-north-west and north-west course past Allahabad and Agra, to the west of which it disappeared on the 24th. It was followed by good rain all over Upper India.

The rainfall of Northern India, in September, was, in a great measure, determined by a storm formed in the east of the Bay below latitude 20°, which, after crossing the Bay and the Orissa coast south of False Point, proceeded west by north to Nagpur. It remained in this neighbourhood some 24 hours, then moved west-north-west to Indore; again loitered for a day and changed its course to north-north-east, and, finally, again changing to north-north-west, passed Lahore and disappeared in the Northern Punjab. This storm carried rain of quite unusual quantity, for the season, to Northern Rajputana and the Punjab, also to Central India. The fall also exceeded the average in the greater part of the Bombay Presidency and Hyderabad, the northern districts of Madras and in Orissa, also locally in some parts of the Central Provinces; but the northern districts of these provinces, the Gangetic plain, and Northern and Eastern Bengal, had all more or less deficiency, being to the north of the region of precipitation.

Two other storms were formed over the Bay and reached the land. But one of these, on reaching the hills of Orissa, was diverted to north-north-east and broke up in Manbhoom; the other, at the end of the month, was generated in the east of the Bay, in the latitude of Cape Negrais, crossed the Bay on a north-west course to False Point, then proceeded west-north-west to near Sutna, and then recurved to north and finally to east, disappearing in Behar, about the 3rd October.

The distribution of the pressure anomaly underwent a further change in this month, the ridge of maximum excess across Northern India nearly disappeared, and the whole area of excessive pressure was shifted northward, leaving the Peninsula as an area of slightly deficient pressure, save the extreme south and the coast of Malabar. The Carnatic became the seat of maximum deficiency, on the one side of the Bay and Pegu on the other.

In Northern India, October was warm, dry, and serene, the rains having ceased either in September or early in the month, except in Bengal, the western districts of which were traversed by a cyclone in the middle of the month. This storm was formed in the west of the Bay, in the latitude of Madras, and travelled north by east to near False Point, and, nearly on the same course, on through Birbhoom. The rainfall was also very heavy and general in Assam. Another storm was formed about midway between Port Blair and Madras, near the end of the month, and travelled north-west to the coast near Vizagapatam; shortly after which it broke up.

These two storms, together with that at the beginning of the month, drew away much of the usual rainfall from the Carnatic, where, in consequence, the fall was generally below the average. This was not the case, however, on the west coast.

The pressure of the whole Indian area was below the average, but the greatest deficiency was in the Punjab in the north, in Orissa and Western Bengal, and in the south-east of the Bay. The first was probably due to the high temperature of the atmosphere; in the other areas partly to the storms.

In the beginning of November, a little rain fell in Bengal, as a sequel to the Vizagapatam storm formed at the end of October. In Madras, except in the southern districts and Malabar, the rainfall was copious, especially in the central and northern districts of the Carnatic. The heaviest rain fell in the latter part of the month, owing to two storms, formed midway across the Bay to the east of Ceylon, and thence travelling, on a nearly identical west-north-west course, to the neighbourhood of Madras. The first of these crossed the Peninsula, but, after its passage, the disturbance caused by it affected a great part of the Peninsula, and caused rain in Hyderabad, the Deccan, the Central Provinces, Berar, and even Bengal. The second broke up soon after reaching the land. In Burma, there was but little rain, but a large excess at the Nicobars and a small excess at Port Blair.

The pressure of the month was as much below the average as that of October, in Southern India; but much less so in the eastern provinces of Northern India; and in North-Western India, slightly above the average. There was no rain in the Punjab nor on the North-West Himalaya.

December was rainless in the greater part of the country, and there was very little snow on the hills. Even in Madras the only rain of importance was in Tanjore.

Thus, the dryness of the North-West Provinces, and of Western and Lower Bengal, on the general outcome of the year, resulted, first, from the comparative rainlessness of the later winter and spring months, and, secondly and mainly, to the fact that the path of the storms in July lay so far south as to leave the Gangetic plain and Bengal to the north of their zone of precipitation; while, in the middle of August, the Gangetic plain and all the southern and western portion of Bengal were within the desiccating influence of the westerly winds. The deficiency, thus resulting in Bengal, was not compensated by the heavy rainfall of Northern Bengal, brought by the same winds, nor by the generally abundant rainfall of October. In September again, the storm that crossed the northern part of the Peninsula, concentrated the rainfall along its track, leaving Bengal and the Gangetic plain without rain. On the other hand, the high rainfall of Rajputana, Central India, Guzerat, Sind, and the southern portion of the Central Provinces, was contributed to mainly by the storms of July, August, and September, three of which penetrated to the plains of Rajputana, and even to the Punjab, carrying with them the vapour which might otherwise have fallen as rain in the more eastern provinces.

In the Peninsula, the great excess of the Deccan was due, first, to the heavy rainfall of the first part of June, following on the first burst of the monsoon; next, to the storm precipitation of July and September, and finally, and in some small degree, to the unusual November rainfall. That of the Malabar coast, more particularly, to the fall of June and July, which, as in the Deccan, more than outweighed any deficiency in August. In the Carnatic, August, so dry elsewhere, brought an unusual amount of rain, and although the rainfall of October and, in some small degree, that of December were deficient, the heavy storm precipitation of November more than counterbalanced the deficiency. In Hyderabad, the storms of September and November more than compensated the deficiency of August.

*The year 1883.*—On the general average of the whole Indian area, as here considered, the rainfall of 1883 was almost exactly of the normal amount, but its distribution was very unequal; being very deficient over nearly the whole of extra-tropical India, and of corresponding excess in the peninsula. The following summary of the rainfall characteristics of the year is extracted from the Report on the Meteorology of India for 1883, page 145:—

"The characteristic features of the rainfall of 1883, as regards Northern India, were a heavy fall of rain over a great part of North-Western India, and an excessive fall of snow on the North-West Himalaya in the latter part of January, followed by a dry February, except on the hills, a somewhat showery March, and a second spell of dry weather, lasting from the middle of March to the end of the third week in May, and of exceptional dryness in the first half of that month. While this great dryness prevailed with westerly winds in North India proper, heavy rain fell in Cachar, producing a disastrous flood; and when it ceased, a copious fall took place over the hitherto rainless provinces of the north-west, with much snow on the outermost snowy range of the North-West Himalaya. In June, the rains set in in Bengal about the usual date, and penetrated rapidly to Behar, but North-Western India remained very dry and nearly rainless, up to nearly the close of the month. Sporadic but locally heavy rain followed in the first three weeks of July, and then set in a drought which, first appearing in the Punjab, gradually extended to the east and south, until it prevailed to the confines of Bengal, to the Satpuras, and even beyond into Khandesh, Berar, the Konkan, and Hyderabad. This lasted for a month or six weeks, and was followed by a heavy burst of rain in the first half of September, which brought the rainy season of North-Western India to a close. Bengal was but little, if at all, affected by this drought, but the rains ceased at the end of September, an unusually early date, and the loss of agricultural produce was consequently very great in some parts of this province. The latter months of the year were generally dry, but falls of snow took place on the North-West Himalaya in September and October, and a very heavy fall, accompanied with rain in the Punjab shortly before the middle of November; a very unusual occurrence. From this time to the end of the year, no further rain fell, except in Lower Bengal, Orissa, and Cachar, owing to the passage of a cyclonic storm early in December.

"In the Peninsula, the first five months of the year were, in general, either rainless or had less than an average fall: the chief exceptions being the first three weeks of March, and locally in April and May. On the west coast, the monsoon rains did not set in steadily at Bombay until nearly the end of June, although preceded by one or two stormy bursts, and further south, and in the interior of the Peninsula, the rainfall was comparatively light, but, in the Carnatic, the season was more rainy than usual. July was very rainy, more or less throughout the Peninsula; and in August, to the south of the region affected by the drought of North-Western India, the rain was more copious than usual. September was rather dry, except in the Konkan and Northern Deccan; but in October, the dryness of the Bengal Province was fully compensated by the heavier rainfall of the greater part of the Peninsula. In November, the limits of the rainfall area gradually retreated southwards; and in the Peninsula there was a dry interval, during which a cyclone was formed in the east of the Bay and passed northwards to Akyab, coinciding also with the unseasonable Punjab rain of this month. But nevertheless, as a rule, in the southern and eastern parts of the Peninsula, and especially in Mysore, the rainfall was more than usually copious. December also, except the first portion of the month, was very rainy in Southern India, and exceptionally so on the Mysore plateau."

As the final result of the year, the greatest deficiency was in the North-West Provinces and Oudh, where it amounted to 22 per cent. of the normal fall. It was nearly as great in the Punjab, Western Bengal, and Sind and Cutch, *viz.*, 20 or 21 per cent., and in Rajputana (18 per cent.). On the other hand, in Berar and Khandesh, the rainfall exceeded the average by 62 per cent., being the wettest season on record. In Hyderabad there was an excess of 31 per cent., and in Mysore and Bellary of 22 per cent. In the Carnatic, it amounted to 15 per cent. of the normal fall.

The earlier part of the cold season of 1882-83 was nearly rainless. The first fall of any

importance in North-West India took place on the 9th and 10th January, the rain being brought by southerly and easterly winds, which, during the greater part of this month, swept the Deccan and the Gangetic Valley respectively, determined apparently by a barometric depression extending northward from the Gulf of Cutch. This depression is a prolongation of a trough of low pressure, which extends up the west coast as a normal feature of the winter season. The rainfall took place along a well defined band on the north and north-east of the region of low pressure, and at a considerable distance from its axis.

The phenomenon was repeated after an interval of a fortnight; and, at the end of the month, a strongly marked cyclonic disturbance which concentrated in the Punjab, gave heavier rain. The rainfall extended over nearly the whole of Northern India and the Bombay Presidency, except Sind and Cutch, and exceeded the average in the Punjab, especially on the Patwar; also, more or less, in Guzerat and all India north of the Satpuras. But Eastern and Lower Bengal, and the north of the Peninsula, had less than the small average of the month.

The atmospheric pressure did not differ much from the average, but there was a slight excess in the east and a deficiency in the west.

After the heavy rain at the end of January, and which was accompanied by a fall of snow of the unusual thickness of 5 feet at Simla, a long spell of dry weather set in, which lasted through February. There was a little rain in the Northern Punjab and some snow on the hills, but not much. With but few and unimportant exceptions, the rainfall of the month was below the average, and the greater part of India absolutely rainless.

As in January, and also in the two following months, the pressure, on the whole, differed but little from the average, being slightly below it in most parts of India; but in this month, at least, slightly in excess throughout North-Western India.

The first half of March was showery throughout the greater part of Northern India; and there was about the usual amount of rain or a little more, except in Northern Bengal and Assam. In the Western Punjab, Orissa, and the eastern districts of the Central Provinces, more than an average fall. On the North-West Himalaya, falls of snow were not infrequent throughout the month. In Southern India, the first 20 days were showery; and in the Northern Circars, the ceded districts and in the west and south, there was more than an average fall, but none in the Carnatic. The latter half of the month was all but rainless everywhere.

The distribution of the small pressure anomalies of the month was again different, there being a slight excess of pressure in the Punjab and Indus Valley, and in the Konkan and Deccan around the Gulf of Cambay.

April, and the first three weeks of May, were very dry in North-Western India. There was a little rain in the Punjab and some snow on the hills; but Rajputana, Central India, and the Gangetic plain, (except under the hills,) were rainless. Bengal had about the usual amount of rain, and there were the usual showers in the east of the Peninsula, and also in Mysore and Coorg, and in Malabar.

The first three weeks of May were rainless in Northern India, except in Bengal; and the atmosphere of North-Western India, both on the hills and the plains, but especially the former, was of almost unprecedented dryness. Westerly land winds swept the whole of Northern India as far east as Behar, in the Gangetic plain, and to the Gangetic delta

further south. At the same time, very heavy rainfall, producing destructive floods, took place in Cachar and Sylhet, and only less heavy in Northern Bengal. The last ten days of the month were, however, as unusually wet in North-Western India and on the North-West Himalaya as the preceding three weeks had been dry. On the latter, snow fell abundantly down to 10,000 or 11,000 feet; and, generally, the rainfall of North-Western India, during this period, was such as to exceed the average of the whole month. At the same time, the rainfall ceased in Eastern Bengal and Assam. In Ladakh, a change of weather had set in earlier, *viz.*, in the beginning of the month, and lasted almost throughout. A large quantity of snow fell, and, as was reported at the time, the snow line was brought down to the ordinary March level.

In the Peninsula, the first part of the month was also dry, and the last showery. In general there was less than the usual amount of rain.

The pressure of India was everywhere below the average, and the abnormal features of its distribution such as usually accompany a great development of the land winds, the characteristics of the first three weeks being dominant. These were, a region of greatest abnormal depression in Lower Bengal, and one of least depression down the west of the Peninsula, the Tapti Valley, and Central India, and one in Afghanistan. Both in April and May, (at least during the dry period,) the temperature of North-Western and Central India was very high; and hence, in part, the lowness of the pressure; but the greatest deficiency of pressure was where the temperature was little, if at all, in excess of the average, *viz.*, in Lower Bengal; here therefore it must have been entirely due to other causes.

So far as any conclusion can be drawn from the somewhat meagre reports of the snowfall, and from the registered rain and snowfall at stations on the outer Himalaya, the precipitation of the whole season was considerably below the average; almost as much so as in the previous year, and more especially so in Kangra and on the Dhaoladhar, and also to the west of the Indus. On the mean of all the rainfall recording stations, it amounted to 81 per cent. of an average fall.

The rains set in, on the Bengal side, a day or two in advance of the average date, *viz.*, on the 13th June; but they penetrated at first only as far as Behar. They were ushered in by a little storm, formed in the north-west corner of the Bay, which, after crossing the coast, proceeded north-west towards Gya, and then turned north, and finally recurved to east, breaking up near Purneah. It brought very heavy rain to Behar; while the greater part of the North-West Provinces, to the west of Allahabad, remained without other rain than an occasional thunderstorm. In general, all North-Western India, including Rajputana and the northern half of Central India, had less than the usual rainfall. Another storm was formed, at the head of the Bay, a few days before the end of the month; one in which the barometric disturbance was much greater than is usual in these monsoon storms. After reaching the coast, to north-west of its birth-place, it crossed India on a nearly due west course, and passed away over Cutch towards the entrance of the Persian Gulf on the 3rd July. The monsoon hardly set in on the Bombay side, in full strength, until the 24th, a day before this storm was formed, on the opposite side of India. In Guzerat there was a slight deficiency, and also in Dharwar, but, as a rule, the total fall of the month, in the Bombay Presidency, was rather in excess than defect. In the Peninsula, there was less than an average fall in Malabar and Canara, and also in Mysore, but elsewhere rather more than usual.

The pressure of the month was slightly below the average, except on the plateau of Central India and Eastern Rajputana, and in the eastern districts of the North-West Provinces and Oudh; also, on the extreme North-West Himalaya. It was most below the average in the Indus Valley, including both the Punjab and Sind; also in Kathiawar, the Konkan and Dharwar, and on the coast of Bengal; but the extreme differences did not exceed ·03 or ·04 inch.

The storm that traversed India on the first days of July brought a deluge of rain to the Satpuras north of Berar, flooding the rivers, and breaching the railways. Before it had passed away, from the west coast, another had formed at the head of the Bay of Bengal, and had moved northwards towards Jessore; but it was short-lived and speedily disappeared. It was, however, immediately succeeded by a third, which crossed the Orissa coast, and travelled westwards to Seoni; but shortly after broke up. A day or two later, this was followed by a fourth, which moved due west from the place of its origin, crossing the Orissa coast between Pooree and Ganjam, and breaking up before it had reached the Central Provinces, about the 15th of the month. After this, all heavy rain ceased in Northern India; the distribution of pressure so characteristic of breaks in the rains, of a dry atmosphere, and north-westerly or west winds, set in, and lasted through the following month. The rain ceased, first in the Punjab, Sind, Guzerat, and Northern Rajputana, about the 18th or 19th; and the drought extended to the south of Rajputana by the 22nd, to the western States of Central India by the 24th, and to the North-West Provinces by the 25th. During the latter part of the month, any rainfall was but very light in Berar, the Central Provinces, Hyderabad, the Konkan and Deccan; in fact, all over North-Western India and far down into the heart of the Peninsula. It is the same region that we have seen affected by the temporary droughts of 1878 and 1880, and the more prolonged drought of 1877, and the attendant phenomena were similar. The only tracts, in which the rainfall of the month exceeded the average, were those in which the excessive precipitation of the storms, in the earlier part of the month, more than compensated for the drought at its close; and, as none of the storms penetrated to North-Western India, this was the region that suffered most.

August was a month of prolonged and extensive drought, not, indeed, absolutely rainless over any considerable area. Even in the Punjab, where the drought was most prolonged, there were a few showers, and a couple of days' heavy rain in the neighbourhood of the hills. But all such rain was local; and everywhere in the Punjab, Rajputana, Central India, and the North-West Provinces and Oudh, the rainfall was largely deficient, Bengal was less affected by the drought. Some districts in the south-west and north of the province had more than an average; but in general elsewhere, and especially in Behar, the fall was deficient.

In the Central Provinces south of the Satpuras, there was a certain excess in the Godavery Valley and around Nagpur. The break was here less prolonged; and both here and in Berar, where it was more pronounced, the heavy rain which succeeded, and fell on the last ten days, fully compensated for the previous deficiency. So also in Hyderabad, where, however, the interruption was shorter.

In Bombay, there was a great deficiency in Guzerat, the Konkan and some parts of the Western Deccan, and Sind and Cutch were rainless. But Khandesh, Sholapur, and the southernmost districts had an average, or more. In Madras, the fall was quite equal to

the average or rather above it; and in Mysore there was a universal excess. In Burma there was a slight general deficiency; but at the Bay Islands rather more than an average. It has been noticed that at the time of the most severe drought in North-Western India, *viz.*, from the 6th to the 15th August, the rainfall was almost entirely suspended at the Andamans and Nicobars also.

The pressure anomalies of July and August were very similar. In the first of these months, all North-Western India, excepting the Eastern Punjab and the Gangetic valley, had a pressure above the average; and a little further south, another tract of excessive pressure occupied the Satpura region, the west coast, and the south of the Peninsula. The greatest abnormal depression was in Bengal, Assam, Orissa and Arakan. In August the chief changes were that, in consequence of the rise of temperature during the drought the lower atmosphere in the Punjab and Sind, the western portion of the Gangetic plain and part of the Central Provinces, had its density so much reduced as to neutralize the excessive pressure of the upper strata, restricting the area of excessive pressure in the north-west. In the Peninsula, there was also an anomalous reduction of pressure, but this was owing to other causes. The anomalous excess remained outstanding in the Sâtpura region and North Deccan, and the coasts of Kathiawar and Sind. Another area occupied the northern half of the Central India plateau, and there was a still greater excess in the extreme north of the Punjab.

The winds, during this period of drought, were such as have been described during similar visitations in previous years. Except in Western Rajputana and the Indus valley the undue prevalence and predominance of winds from the west and north-west were a strongly marked feature throughout North-Western and Central India, and further south in the Konkan and Western Deccan. Even in Bengal, easterly winds, though preponderant, were considerably less so than in most years; and at Hazaribagh, there was a large excess of north and north-west winds. The atmosphere over the Punjab, Rajputana, Central India, and the upper portion of the Gangetic plain was abnormally dry, both in the absolute deficiency of vapour, and still more relatively to a state of saturation.

Two or three little storm vortices were formed over Lower Bengal in the early part of the month, but they broke up near their place of origin; on the 18th and 19th, a similar vortex was formed over Behar and the adjacent portion of the North-Western Provinces, and this eventually brought the drought to a close. But, during all this time, no storm was formed over the Bay; nor was it until the 22nd that a little storm was formed as low down as latitude 18°, which advanced slowly westwards to the Ganjam coast, and after crossing it, speedily disappeared among the hills of Bastar.

A general fall of rain took place in the first week of September, and although, in the Upper Provinces, the rains came to an end about the middle of the month, so copious was this rainfall that, in the Punjab, Rajputana, and Central India, the total rainfall of the month generally exceeded the average. In the North-Western Provinces, however, the fall was lighter and, as a general rule, below the average. In Bengal also, except in Chutia Nagpur, Sirguja, and Cuttack, a deficiency was general, amounting to one-half the usual fall.

But in the Central Provinces, Berar, Hyderabad, Khandesh, Poona, Satara, and the Konkan, there was a more or less excessive rainfall. Further south, in Mysore and Madras, it was more or less largely deficient.

No travelling vortices appeared during this month, but a broad trough of low pressure extended from the Punjab in a south-east direction to Orissa, with a higher pressure on the north, and local minima, causing a temporary concentration of the rainfall, were formed on several occasions within this trough. The abnormal elements of this barometric feature were, a general abnormal depression of the whole of Northern India, and the north-east of the Peninsula, while the remainder of the Peninsula and Kathiawar was the seat of a somewhat excessive pressure, the greatest excess being in Malabar and Canara.

In the Punjab, North-Western Provinces and Bengal, October was a very dry month, but there were some falls of snow on the North-West Himalaya; in Chamba, four times down to levels of 10,000 feet and below. In Bengal, the unduly early cessation of the rains, in September, caused a very serious loss of agricultural produce. In Assam, the fall was almost equally deficient.

In the Central Provinces and the north-west of Hyderabad, and still more in Berar, heavy rain, in the third week, brought the monthly total up to or beyond the average, and in Bombay, the fall was unusually heavy in Khandesh and the northern districts of the Deccan.

The heavy rainfall of all this region, in the north-west of the Peninsula, was due to a small storm, which was apparently formed over the North Deccan, about the 19th, and then moved eastwards towards Nagpur.

In Madras, from Vizagapatam southwards, the rainfall was very heavy, and during a great part of the month, the barometric depression over the south-west of the Bay, which appears in the chart on Plate V, as a normal feature of October, was concentrated to a minimum off the Coromandel coast, at no great distance. To the north and west of this, in the northern and central districts of the Carnatic, rain was frequent and heavy throughout, and it extended to the plateau of the interior, to Cuddapah, Bellary, and Mysore. In the north of Ceylon, the fall was equally excessive, but in Burma it was generally deficient.

The anomalous features of pressure distribution, which were associated with this excessive rainfall in Southern India, were, first, a universal small excess, and, second, a maximum excess in a belt stretching obliquely across Northern India from the Punjab and Western Rajputana to Chutia Nagpur, Orissa, and the Northern Circars. The relation of this to the wind anomalies would necessarily be an increase of easterly elements, at the expense of northerly elements, both on the Coromandel coast and the south of the Peninsula, and indeed, more or less, throughout the Peninsula; while north-west winds would be favoured down the Gangetic plain. The description of the winds, given in the Report on the Meteorology of the year (page 69), entirely bears out this inference.

Over a large part of Northern India, there was but little rain in November, but, between the 10th and 15th, a very heavy fall of snow took place on the North-West Himalaya, accompanied with rain on the plains of the Punjab and the adjoining districts of the North-Western Provinces. This was due to a barometric depression formed in Western Rajputana, which determined, as usual, a heavy precipitation on its northern and eastern limbs. Simultaneously therewith, a cyclone was formed to the east of the Andamans, in the south-east of the Bay of Bengal, and travelled, first to north-north-west, then gradually recurving to north-north-east, it reached the Arakan coast near Akyab.

Immediately after the heavy snowfall in Cashmir, Kulu, Bushahir, &c., a fall which came down to 4,000 feet and 5,000 feet, and gave a precipitation equal to 5 to 7 inches of rain on the hills, and 3 or 4 inches on the sub-montane plains, a spell of cool dry weather set in in Northern India, which lasted till the end of the year.

In Southern India there was a dry interval in the first half of the month, during the formation and existence of the Akyab cyclone, but the fall of the month generally exceeded the average, and especially in Mysore. At the Bay Islands, there was a large excess, especially at Nancowry. As an accompaniment of the storm, there was also heavy rain in parts of Pegu and Arakan.

December was chiefly remarkable for an ill-defined cyclonic storm, which, being generated in the south of the Bay, after travelling a short distance to north-west, recurved to north-east, and eventually reached Lower Bengal, bringing two days' rainfall, which came, most inopportunely, to spoil the opening ceremony of the Calcutta Exhibition. The middle of the month was very rainy in the Carnatic, Malabar, and Travancore, and the total fall generally exceeded the average.

From this historical summary, it results that the deficiency of the rainfall in Northern and, more particularly, North-Western India, was the result, first, of a dry cold weather and spring; the greater part of March, the whole of April, and the first three weeks of May being almost rainless on the plains of the north-west. But the end of May brought a fall of rain which, though insufficient to compensate for the deficiency of two and a half months' drought on the plains, was accompanied with a heavy fall of snow on the Himalaya, which probably contributed to enhance the dryness of the subsequent monsoon.

The monsoon rainfall of June did not penetrate much to the west of Behar, the storm which ushered it in, in Bengal, having been directed first to north and then to east; and that which followed, and which was of somewhat unusual intensity, having taken a course due west across the Peninsula, carrying an excessive rainfall to the Satpuras and especially Berar, while in the Punjab and Rajputana, such rain as fell, had rather the character of the hot weather storm precipitation than that of the monsoon. Three other storms followed, two of which took a still more southerly course, and none proceeded far into the interior. Then followed the prolonged drought, with westerly winds, which was a virtual recurrence of hot weather conditions, and involved an almost complete suspension of the rains, lasting to the latter part of August. A week of heavy general rain, in September, was the only copious fall of the season, in a large part of North-Western India. One storm, formed in the Bay, at the end of the drought, reached the coast even further south than any of the preceding, and speedily broke up.

The later months of the year were dry in Northern India; the only important rain in the north-west was that of November, which was accompanied with heavy snow on the Himalaya, and was followed by a spell of cool dry weather that lasted to the end of the year. In Bengal, the rains ceased early, being carried southward to the Peninsula, where both September and October were very rainy months. The early transfer of the monsoon precipitation to the Peninsula enhanced greatly the rainfall of the latter at the expense of Bengal and Assam.

## General Conclusions.

The foregoing retrospect of the meteorology of the last nine years has shown that, besides the great and widely extended droughts of the two years 1876 and 1877, there have been several occasions on which the monsoon rains have been retarded or suspended for many weeks in succession, by the recurrence of meteorological conditions, essentially of a like character with those of the corresponding seasons of these two years. Moreover, the detailed description of the meteorology of these two famine years has shown us that, although they present some features in common, they were also distinguished by marked differences; and, with one partial exception, no single set of unfavourable conditions characterized the period as a whole.

THE YEARS 1876 AND 1877.—The disastrous famine, which devastated large tracts of the Peninsula in 1876-77, resulted from a succession of unfavourable seasons. First, an undue persistence of dry northerly winds in the spring months of 1876, which prevailed far down the interior of the Peninsula, and were an exaggerated development of winds, to a certain extent, characteristic of the season; second, a steady westerly summer monsoon, which swept the Peninsula without precipitating its moisture; and, lastly, the re-establishment in October of dry land winds, while the rain, which usually falls abundantly on the Carnatic, was diverted and concentrated over the Bay or along the tracks of certain cyclones. This concentration of the rainfall in certain cyclonic vortices was indeed characteristic, more or less, of the whole summer monsoon; and hence it resulted that, while the average fall was exceeded along a certain zone in which there occurred more than one destructive flood, not only the Peninsula to the south, but also, in a minor degree, the Gangetic plains to the north of the zone, suffered from a deficient rainfall.

But the whole precipitation of the season on the land area here considered was small, as was also that of the succeeding year; and this would seem to indicate, either that the vapour-bearing current must have carried less than its usual charge of moisture, or that it must have been drawn towards India in appreciably diminished volume.

The dearth of North-Western India in the following year was simpler, and resulted solely from the failure of the summer rainfall. Both the earlier and later months of the year were more than usually rainy; but the monsoon current, of oceanic origin, was practically diverted from the plains of Northern India, which were swept by dry westerly winds, similar in character to the ordinary hot winds of the spring months. The precipitation, withheld from India, seems to have been transferred, in part, to the Burmese peninsula, where the rainfall of July and August, and, in some measure, that of June and September, was unduly heavy.

The drought of 1877, although most severe and prolonged in Northern or extra-tropical India, *i. e.*, the country north of the Satpuras including the Punjab, Guzerat, Rajputana, Central India, the North-West Provinces, Oudh, and Behar, was by no means restricted to that area. It extended, for a time, to all the western and southern provinces of the Peninsula; to Malabar, the Carnatic, Mysore, Bellary and the Deccan, temporarily indeed, and only in a mitigated degree; but in the Konkan, Berar, and Khandesh, Hydera-

bad and part of the Central Provinces, the rainfall of July failed almost completely, and that of the remaining monsoon months was also more or less deficient.

Several cyclonic vortices were formed over the Bay of Bengal; no less than five in the month of August alone, when the drought was at its height in Northern India; but all of these, instead of taking the usual westerly course across Central India, as in the previous year, travelled north or north-west to Bengal, and speedily broke up. Bengal, therefore, or rather its southern districts, received more than the usual amount of precipitation, while the northern districts shared the drought of the more western provinces. A similar course was taken by a little vortex in August 1880, which resembled August 1877 in most of its prominent features, especially in the drought throughout Western and most of Northern India; and there is doubtless an intimate connection between storm tracks of this character and the prevalence of westerly winds in Northern India. As Mr. Eliot's charts show, these northerly tracks are characteristic of storms of the transition periods of the year, *i.e.*, the change of monsoons.

BAROMETRIC FEATURES OF 1876 AND 1877.—Of the barometric features that characterized these two years of drought, one was nearly persistent throughout, others varied with the season, and accordingly as Northern or Southern India was affected, and was the chief theatre of the dry land winds. The persistent, or almost persistent, feature was an excessive atmospheric pressure, which first became pretty general in June 1876, and the variations of which are shown in Figs. 2, 3, 4 and 5 on Plate XVIII. It disappeared for a time in the following month, during which there was an ample rainfall in most parts of Northern India; but re-appeared partially in August, and became general in September and October; in November it partially disappeared, but was restored, becoming general and more excessive than ever in December, and lasting with some fluctuation, but without interruption, till August 1877. Even then its disappearance was only partial and temporary, and in the three following months, it was once more re-established and universal. In December again it was partially suppressed, but was restored in January and prevailed all through the spring of 1878. At length, in June, July, and August of this latter year, portions of the country ceased to be subject to it; and in September it finally disappeared, and was succeeded by a long period of deficient pressure. It had lasted, with only partial interruption, for not less than two years. It can hardly be doubted that this remarkable feature of the meteorology of the two years, if not itself a proximate cause of drought, was nearly connected with some such cause. Its temporary suppression, in July 1876, was simultaneous with a good rainfall in Northern India, and its gradual and final disappearance in August 1878, coincided with the appearance of the much retarded rainfall of that year.

Two other barometric features, less lasting and local, were probably dependent on the same causes as the drought, and intimately connected with it. These were, *first*, a maximum excess of pressure in some portion of Western India; generally, as in July and August 1877, in Kathiawar and around the Gulf of Cambay, with an extension eastwards through the Nerbudda and Satpura region, Berar and the Central Provinces; and, *second*, an excess of pressure down the west of the Peninsula: the former being more particularly associated with abnormal westerly land winds across Northern India, the latter with abnormal northerly or with the absence of southerly winds in the Peninsula.

The first of these has been frequently noticed in the annual discussions of the meteorology of India, as modifying the course of the isobars across Western India, when-

ever the summer monsoon has been suspended in Northern India, and replaced by a prolonged spell of dry westerly winds. Allusion has been made to this feature in Part I of this Memoir,[1] where also it is noticed as a modification of the isobars of the normal pressure. It is however rendered more conspicuous, and its character more clearly seen, when separated from the pressure distribution characteristic of the month or season, and exhibited, as in the July and August charts on Plate XVI, by isabnormal lines. Very similar, in all essential points, are the isabnormal chart of August 1880, (only the latter two-thirds of which month however were included in the drought of that year), and that of August 1883,[2] nearly the whole of which, together with the latter part of July, was a prolonged break in the rains, most prolonged in the Punjab.[2] The isabnormal chart of this latter month differs from that of the next following month, chiefly in the fact of all North-Western India, and not Kathiawar and the Satpura region only, being a region of maximum excess.

In all these cases, the isabnormals form part of an anticyclonic system, centering about the Gulf of Cambay; and the well-known relation of the air movement to such a system would imply an undue prevalence of west winds in Northern India and of north-east winds in the north of the Peninsula. But since the anomalies of the winds, like those of the pressure, are not a system in themselves, but only an abnormal feature superimposed on that characteristic of the season, the effect on the peninsular winds is manifested, chiefly in a slight increase of northing modifying the normal westerly current, and in the weakening of the latter. Such has been shown to be the case in July and August 1877; and the phenomena of the droughts of 1880 and 1883 were almost exactly similar. It must be here observed that, although in the charts in question, the maximum excess of pressure appears to be restricted to a certain small region around the Gulf of Cambay, this is probably in part owing to the fact that, in all these months, the drought prevailing in Rajputana, the Punjab, and indeed all North-Western India, was accompanied with a greatly enhanced temperature, amounting, in July and August 1877, to 5° or 6° on an average; in August 1880 to about 1·5°; and in August 1883 to over 3°, on the mean of the months. But for the reduction of the density of the lower atmosphere so produced,[3] it is probable that a large part of the north-western plains would have been included in the region of abnormal maxima; and this may well have been actually the case at an elevation of 5,000 or 6,000 feet. This surmise is not irrelevant, for Mr. Hill has lately shown that the westerly winds of Northern India, in the spring months, which are apparently identical with the abnormal west winds of seasons of drought, are in harmony rather with the distribution of pressure at an elevation of a few thousands of feet, than with that at the level of the plains; and it is almost certain, for the reasons originally given in a paper read before the Royal Society[4] in May 1884, and briefly adverted to on a previous page (p. 96)[5] of this Memoir, that these winds are drawn mainly from the plateau and mountain zone to the west and north of India, and gradually descend to the lower levels, partly at least by convection.

[1] Page 23.

[2] Also October 1881 and October 1882, both very dry months.

[3] For every degree Fahrenheit of increased temperature, supposing that it affected the atmosphere to its full amount, only at the land surface, and decreased gradually upwards, becoming evanescent at 6,000 feet, there would be a reduction of about ·005 on the pressure of the atmosphere at the ground surface.

[4] Proc. Royal Soc., XXXVII, p. 19.

[5] Also p. 70 and *postea*, p. 228.

The excessive pressure down the west coast of the Peninsula, which was so marked in March, April, May, August and September 1876, and also from May to September 1880 and 1883, is evidently connected with an undue prevalence of north-west winds in the Deccan, or rather its western portion, and during the monsoon, with an absence of occasional southerly winds. As the above statement shows, it generally accompanies the former type of barometric anomaly in Northern or Central India, and is almost certainly determined by similar conditions. It is always associated with comparative drought.

Another abnormal type of pressure distribution, associated with characteristic weather phases, is that exhibited in April 1877, in July, August and September 1878, May and August 1879, and May and June 1885, and also in October 1883. This is almost the reverse of the foregoing, when either a minimum excess or maximum deficiency of pressure is established in the neighbourhood of Kathiawar and down the west coast, around which the isabnormals form portion of a cyclonic system, with a relative excess in the Punjab, the Gangetic plain, Bengal and the Madras coast. This is always associated with an undue prevalence of easterly winds up the Gangetic plain, and in Northern India, sometimes with excessive rain on the Himalaya and the Punjab, but the rainfall is more concentrated in the region of the lower pressures, especially the Central Provinces, Berár and Hyderabad, and frequently the Deccan, Konkan and Guzerat, while in Bengal there is a deficiency of rain.

Many other types of abnormal pressure distribution are shown in the isabnormal charts which have been constructed for the purpose of the present description, some of them repeated more than once in the series, and frequently maintaining the same general character for many months in succession; as indeed is shown in those here reproduced on Plates XIII to XVII for the years 1876, 1877, and 1878. In many, indeed in most cases, each type has a definite relation to the distribution of the rainfall, which it may be worth while hearafter to follow out more completely than I can now attempt to do. The subject is too large to deal with satisfactorily in this place, and in order to do so with any degree of completeness, it would be necessary to take into consideration the anomalies of temperature, and to ascertain how far these in the lower atmosphere counteract the pressure conditions of the higher atmospheric strata, which appear to be those most influential in regulating the variations of our weather.

The monthly means, here compared, are of course, in point of fact, a mere arithmetical product, and in treating them as representing a more or less stable condition, on which the temporary changes of local weather are superimposed, very much is assumed, which may not seem justified to those who have not, like myself, constructed charts from day to day, for months and years together; and learned, by the irrefragable evidence of daily experience, how persistent are certain minor features of barometric distribution, winds, &c., amid all the greater changes and oscillations. This however I have done, with the result I have stated; and Mr. J. Eliot, whose experience is equal to my own, has more than once enunciated a similar conclusion.[1]

Moreover, the very definite and consistent character of the system to which they combine, and its evident relation to the observed peculiarities of the winds, and to the distribution of the rainfall, in such cases as have been noticed above, afford independent grounds for regarding these peculiarities of pressure distribution as a condition of the atmosphere, underlying the daily and hourly changes, and if not permanent, at least much less ephemeral than they.

[1] *e.g.*, Report on the Meteorology of India in 1877, p. 168.

It may then, I think, be concluded that the existence of an abnormal excess of pressure in Western India, during seasons of drought and prolonged breaks in the rains, is a quasi-persistent condition, intimately connected with the abnormal prevalence of land winds; and this view is confirmed when the isabnormal charts of such months as July and August 1877 on Plate XVI, are compared with the normal isobaric charts of March and April on Plate IV, the months in which hot (westerly) land winds are a frequent and characteristic feature of the season.

SOURCE AND EXTENSION OF THE LAND WINDS.—I have given elsewhere my reasons for regarding these land winds as a current descending from a higher level to the surface of the plains; the reasons being, first, that they blow from between north-west and west in Upper India; and that, while the northern and north-western frontier of India is surrounded by a mountain zone, which, down to Lower Sind, is nowhere less than 4,000 or 5,000 feet in height, and in the north averages over 20,000 feet, there is no steady drainage of air from the low level valleys to feed these winds. Second, that they blow chiefly during the heat of the day, and lull or fall to a calm at night; and this fact, together with a consideration of the rapid vertical decrement of temperature in the day time, indicates that they are an upper current brought down by convection. Mr. Hill has, quite independently, arrived at the same conclusion, which he has announced in a paper recently communicated to the Royal Society.[1] As evidence of the existence of such a current at high levels, I may add that, during the prolonged drought of 1877 and the temporary droughts of the monsoon seasons of 1880 and 1883, as well as generally in the spring months, I have observed at Simla a steady and rapid overhead current from the north-west, as indicated by the movements of cloud patches, continuing uninterruptedly as long as the drought lasted. Immediately after a fall of snow on the North-Western Himalaya, in the spring or late autumn, the crest of the Simla hills are sometimes swept by a north-east or north wind; but this direction is not long maintained, and north-west is the characteristic wind of clear dry weather. I have remarked too in a former part of this Memoir (page 70) that at Quetta in Baluchistan, the prevailing winds, throughout the monsoon, are north-west or west; identical therefore with those on the lower plains.

But these north-west winds are not restricted to the land. The work recently completed by Mr. W. L. Dallas, the reduction of the weather logs (collected by the London Meteorological Office,) relating to the Arabian Sea, and the construction of charts of barometric pressure and of the prevalent winds for each month of the year, has shown that, during the spring months and up to the setting-in of the rains, the eastern half of the Arabian Sea is swept by somewhat unsteady north-west winds, which are evidently merely the lateral extension of the land winds of Northern and Western India. Like these latter, they are comparatively dry winds, (though of course not having the parching dryness of the Indian hot winds), and they are associated with fine clear weather and almost cloudless skies. They are, in fact, the local form of the winter (commonly called the north-east) monsoon of the North Indian Ocean, and in December, January and February, before the land surface of the Peninsula has been strongly heated, they have no excess of westing, but are northerly winds in the neighbourhood of the land, varying through all the northern half of the compass and becoming north-east over the greater portion of the Arabian Sea. As the heat of the land increases, and the indraught

[1] Proc. Royal Soc., Vol. XLII, p. 35.

towards the seat of minimum pressure in Northern India becomes more and more established, so do the northerly winds of the eastern portion of the Arabian Gulf back more and more to north-west; and in Northern India itself, that portion of the current which has swept the plateau of Baluchistan, descends on the plains and becomes the hot west wind of the Central India plateau and the greater part of the Gangetic plain.

A glance at any good map of Southern Asia will show, at once, why this indraught of land wind from the Asiatic continent is west or north-west, and not north-east. The Himalaya, and its continuation, the Hindu-Kush, oppose an insuperable barrier to any indraught from those quarters, at all events up to an elevation of 20,000 feet; but the plateau of Baluchistan and Southern Afghanistan affords free access from the high plains of Persia at much lower levels; and thus it is that, as India becomes a centre of aspiration in the spring months, a portion of the current, which, in the winter months, feeds the north-east monsoon of the Arabian Sea, is drawn eastwards to India, becoming the north and north-west wind of the Malabar coast, and the north-west and west land wind of Northern India.

What may be the precise origin of this current, is indeed a matter for future enquiry. Except over India and (now) over the Arabian Sea, we have no very exact knowledge of the distribution of pressure. From these data, however, it seems that, up to January, the land to the west of the Indus is the seat of the highest pressure; and it may be inferred that the air is drawn thence; but in the spring months a barometric maximum is established over the central part of the Arabian Sea, and the west winds of Baluchistan and Western India are then such as, according to the anemometric law, prevail to the north of an anticyclonic system. They are very probably fed in part, at least, by the overflow of air from some portion of the Asiatic continent, since, at this time of the year, there must be a large transfer of air from over the interior of Asia, reducing the pressure from a maximum to a minimum, by the withdrawal of a mass, which exerts a pressure of between one and two barometric inches.

Such being then, as far as we can ascertain, the origin and relationship of the land winds of the spring months, it is only a step further, the validity of which will hardly be disputed, to regard the west and north-west winds of Baluchistan, in the summer months, as the residue of this indraught; and the re-appearance of the westerly land winds in Northern India, in seasons of temporary or prolonged drought, as an abnormal resuscitation or prolongation of what are the normal conditions of the spring. In like manner, the abnormal prevalence of north-west winds in the Deccan, which, as in several months of 1877, and in August 1880 and 1883, occurred simultaneously with the dry westerly winds in Northern India, are, as they are normally in the spring, the southward extension of the same current. It is well known that, in such seasons as these, the mail steamers between Bombay and Aden experience fine clear weather and a smooth sea; in fact, such weather as precedes the monsoon, showing that the abnormal conditions, on such occasions, are not restricted to the land.

To a very great extent then, if not exclusively, the problem of an abundant or scanty monsoon rainfall resolves itself into that of the conditions that determine whether the monsoon indraught of Western India is mainly drawn from a more northerly or more southerly source. To solve this ulterior problem, we should require a very complete knowledge of the meteorology of the Asiatic continent, as well as of that of equatorial seas; of the great currents of the higher, as well as the lower atmospheric strata; and our actual knowledge is unfortunately of the scantiest. Such as it is

however, it may be worth while to bring it to the test, and to see whether it affords any clue, which may perhaps be profitably followed up hereafter, leading to a recognition of the more remote causes of these vicissitudes.

HIGH ATMOSPHERIC PRESSURE IN ASIA AND AUSTRALIA.—It has been pointed out above, that the two years of disastrous drought were two years of persistently excessive pressure. With two brief interruptions, the mean pressure of the whole Indian area remained above the average for about two years; and some reasons have been given (deduced from the recorded facts of the rainfall) for regarding this excessive pressure as nearly connected with the feebleness of the summer monsoon. On *a priori* grounds, it is obvious that if the excess of pressure were greater over the land than over the sea, this alone would tend to keep back the oceanic indraught. Of this, however, there is no evidence, since we have no observations from the equatorial sea whence the summer monsoon is drawn. The Malay region, indeed, as represented by Singapore and Batavia, shared the anomalously high pressure of India, and, as will presently be shown, so also did the Mauritius.

This however is not all. Central and Northern Asia also shared the excessive pressure. Over the extra-tropical portion of this great continent, the oscillations of pressure are of course very much greater than in India; so great indeed, from day to day and from month to month, that any small general excess, due to less ephemeral causes, would necessarily be interrupted and to a great extent, masked by the former. It does, however, appear that, in most months of 1877, the atmospheric pressure was unusually high, and especially so in certain of the winter months. The following table gives the mean monthly anomalies of the four stations, St. Petersburg, Catherinenburg, Barnaul and Tashkend for the years 1876, 1877 and 1878, and the means of the four. The averages, adopted as normal values, are derived, in the case of the first three stations, from the years 1847—1884; those of Tashkend from the years 1871—1883. The corresponding curves are shown on Plate XVIII.

*Anomalies of monthly mean pressure at four Russianstations in the years 1876-78.*

1876.

| Stations. | January. | February. | March. | April. | May. | June. | July. | August. | September. | October. | November. | December. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. Petersburg | +·249 | +·018 | —·293 | +·019 | —·017 | +·134 | —·036 | +·072 | —·113 | +·036 | +·216 | +·119 |
| Catherinenburg | +·054 | —·077 | +·030 | —·064 | +·032 | +·102 | +·049 | +·057 | +·095 | —·166 | +·130 | —·220 |
| Barnaul | +·025 | —·141 | —·011 | —·067 | +·048 | +·004 | —·014 | +·018 | +·110 | —·116 | +·148 | —·123 |
| Tashkend | +·047 | —·004 | +·004 | +·087 | +·039 | +·008 | —·071 | p | p | p | p | p |
| Means | +·094 | —·051 | —·067 | —·006 | +·025 | +·062 | —·018 | +·049 | +·031 | —·082 | +·165 | —·075 |

1877.

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. Petersburg | +·158 | —·144 | —·096 | +·094 | —·017 | +·039 | +·016 | —·010 | —·211 | —·039 | —·017 | +·340 |
| Catherinenburg | +·094 | +·089 | —·116 | +·027 | +·107 | —·024 | +·159 | +·073 | —·126 | +·102 | +·174 | +·607 |
| Barnaul | +·076 | +·087 | —·007 | —·020 | +·110 | +·059 | +·080 | +·105 | —·016 | +·136 | +·124 | +·314 |
| Tashkend | +·087 | —·067 | +·063 | —·043 | —·024 | +·110 | +·051 | +·063 | —·032 | +·016 | —·024 | +·154 |
| Means | +·104 | —·009 | —·039 | +·014 | +·044 | +·046 | +·076 | +·058 | —·096 | +·054 | +·064 | +·354 |

*Anomalies of monthly mean pressure at four Russian stations in the years 1876-78,*—continued.

1878.

| Stations. | January. | February. | March. | April. | May. | June. | July. | August. | September. | October. | November. | December. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| St. Petersburg . | —·098 | —·207 | —·289 | +·102 | —·112 | +·047 | —·244 | —·046 | —·069 | —·012 | —·068 | —·164 |
| Catherinenburg . | +·082 | —·203 | +·002 | —·036 | —·094 | +·118 | —·195 | —·120 | —·051 | +·137 | +·044 | +·232 |
| Barnaul . . | +·151 | +·083 | +·087 | +·028 | —·015 | +·051 | +·021 | —·041 | —·043 | +·085 | +·034 | +·184 |
| Tashkend . . | —·008 | —·059 | +·008 | +·024 | +·028 | 0 | —·004 | —·047 | 0 | 0 | +·047 | —·024 |
| Means . . | +·032 | —·096 | —·048 | +·030 | —·048 | +·054 | —·105 | —·063 | —·041 | +·052 | +·028 | +·057 |

In December 1877, the pressure at the three Asiatic stations was more excessive than in any single month of the 48 (or 12) years' registers recorded; and it was above the average at all of them in January, May, June, August, September, and November 1876, January, July, August, October and December 1877, and March and November 1878; while it was below the average at all, only in February, October and December 1876, September 1877, and August and September 1878.

Nor was this remarkable phenomenon restricted to the Northern Hemisphere. It was shown in the Report on the Meteorology of India in 1878 (page 54) that Batavia in Java, and all South-Eastern Australia, as represented by Sydney, Melbourne, and Adelaide, were subject to a prolonged spell of excessive atmospheric pressure. At Adelaide, where it was greatest and most lasting, from December 1876 to March 1878, only in one month (May 1877) was the mean pressure not in excess of the average; and it was at its maximum in July 1877. The oscillations during this period, which were very considerable, were simultaneous at all the stations, and also in part at the Mauritius, as is shown in the following table :—

*Anomalies of monthly mean pressure in South-East Australia and the Mauritius in 1876-78.*[1]

1876.

| Stations. | January. | February. | March. | April. | May. | June. | July. | August. | September. | October. | November. | December. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sydney . . | —·058 | —·026 | —·051 | —·102 | +·090 | +·027 | +·006 | +·023 | —·045 | —·120 | —·150 | +·048 |
| Melbourne . . | —·053 | —·013 | —·044 | —·094 | +·113 | +·050 | +·097 | +·052 | +·006 | —·057 | —·117 | +·058 |
| Adelaide . . | —·018 | +·017 | —·042 | —·038 | +·103 | +·081 | +·113 | +·067 | +·031 | —·017 | —·071 | +·065 |
| Mauritius . . | —·094 | —·093 | +·024 | +·020 | +·067 | +·042 | +·053 | +·025 | +·030 | +·003 | —·016 | +·055 |

[1] The averages here adopted as normal or standard values are, in the case of Sydney, those of 22 years, from 1858 to 1879 inclusive; in that of Melbourne, those of 25 years, from 1859 to 1883; in that of Adelaide, those of 26 years from 1857 to 1882 and in that of Mauritius, those of 23 years, from 1861 to 1883. They are as follow :—

| Stations. | January. | February. | March. | April. | May. | June. | July. | August. | September. | October. | November. | December. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sydney . . . . | 29·917 | 29·955 | 30·046 | 30·083 | 30·061 | 30·082 | 30·092 | 30·085 | 30·025 | 29·990 | 29·928 | 29·884 |
| Melbourne . . . | ·834 | ·890 | 29·965 | ·017 | 29·989 | ·001 | ·025 | 29·984 | 29·914 | ·883 | ·858 | ·808 |
| Adelaide . . . | ·929 | ·975 | 30·059 | ·133 | 30·119 | ·122 | ·163 | 30·130 | 30·064 | 30·017 | ·989 | ·940 |
| Mauritius . . . | ·944 | ·924 | 29·970 | ·009 | ·083 | ·167 | ·204 | ·210 | ·196 | ·136 | 30·069 | ·999 |

*Anomalies of monthly mean pressure in South-East Australia and the Mauritius in 1876-78,* —continued.

1877.

| Stations. | January. | February. | March. | April. | May. | June. | July. | August. | September. | October. | November. | December. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sydney . . | —·054 | +·042 | +·062 | +·014 | —·185 | +·187 | +·136 | +·076 | +·090 | +·050 | —·016 | —·005 |
| Melbourne . . | +·001 | +·018 | +·088 | +·053 | —·145 | +·211 | +·163 | +·091 | +·157 | +·124 | 0 | +·013 |
| Adelaide . . | +·029 | +·022 | +·073 | +·080 | —·123 | +·274 | +·141 | +·105 | +·197 | +·152 | +·073 | +·060 |
| Mauritius . . | +·025 | —·044 | +·024 | —·015 | +·053 | +·067 | +·068 | +·058 | —·013 | +·022 | —·025 | +·030 |

1878.

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sydney . . | +·082 | +·062 | —·013 | —·013 | +·058 | —·128 | —·113 | —·076 | —·101 | —·053 | —·019 | —·064 |
| Melbourne . . | +·119 | +·056 | —·010 | —·039 | +·079 | —·092 | —·115 | —·072 | —·110 | —·075 | —·005 | —·039 |
| Adelaide . . | +·103 | +·067 | +·031 | —·023 | +·101 | +·001 | —·117 | —·019 | —·098 | —·049 | +·042 | —·006 |
| Mauritius . . | +·032 | +·041 | +·026 | —·036 | —·024 | —·017 | —·062 | —·045 | —·027 | —·048 | +·016 | —·040 |

It is to be observed that, as in the case of the northern hemisphere, the intensity at the Australian stations was greatest in the winter months, or at the alternate periods of the year in the two hemispheres.

It is evident, from the above cursory sketch of the facts, that the phenomenon was one of very extensive geographical range, affecting both hemispheres, from, at least, 60° north to 38° south latitude, and the southern hemisphere from 55° to 153° east longitude. Its phases of greatest intensity alternated between the two hemispheres; occurring, in both cases in the winter season, *viz.* in June 1877 in Australia (June to July in the Mauritius), and in December 1877 at the Russian stations. There was a less definite secondary maximum also, at the Australian stations, some time between May and September 1876, and at the Russian stations in November of the same year.

HIGH ATMOSPHERIC PRESSURE AND DROUGHT IN OTHER YEARS.—As far as I have been able to compare the past registers of the Russian stations, the only previous year (since 1846) in which an excessive pressure has been equally general and intense is 1860. Now, whether it be a mere coincidence, or due to some causal connection between the phenomena, it is interesting to note that 1860-61 was a season of famine in the North-West Provinces and portions of the Punjab and Rajputana, owing to the failure of the summer rainfall in 1860. It is thus noticed in the tabular statement of famines, at page 22 of the Report of the Indian Famine Commissioners:

1860.—Drought in part of North-West Provinces and Punjab and neighbouring states of Rajputana.

1861.—Famine in Upper Doab of North-West Provinces, in Delhi and Hissar divisions of Punjab, and the adjoining parts of Rajputana. Scarcity in Cutch.

And it is further added in paragraph 49 (p. 11) of the Report:

"The seasons of 1858 and 1859 were irregular and unfavourable; and, in 1860, the monsoon was so extremely deficient that the autumn harvest was to a great extent lost, and the ground was too hard and dry to sow the winter crops. The winter rains also were entirely wanting."

But, although, according to the evidence of the last 37 years, the only two years of general excessive pressure in Central and Northern Asia have both been years of drought in Upper India, the converse proposition does not hold good. In the year 1868, the failure of the rainfall of North-Western and Central India was greater and more widely spread than in 1860; but, although the pressure was excessive at most of the Siberian stations I have compared, it is apparently less so than in 1869, a year of average and well distributed rainfall, and not more so than in 1870, the rainfall of which was abundant. Again, in 1880 and 1883, the rains of North-Western and Central India, and even, to a certain extent, those of the Peninsula, were interrupted by a prolonged drought. In 1883, it is true, the pressure was very excessive at St. Petersburg, Catherinenburg and probably Barnaul;[1] but in 1880, it was greatly below the average at the first two of these stations, and doubtfully, and only slightly, above it at the third. The excess at Tashkend and Bushire was also insignificant.

It is indeed possible, and even not improbable, that a more searching examination and comparison of the barometric registers of Central Asia, or still better of the pressure on the great Tibetan and Afghan highlands, or even that of Arabia (were such known), might show that the apparently exceptional droughts of 1868 and 1880 were in reality no exception to the rule, save that the area of abnormal atmospheric pressure was less extensive in those years than in 1860 and 1877; but, as the evidence stands at present, the necessary coincidence of the two phenomena must remain a doubtful point; except in so far as the abnormal persistence of a certain class of land winds, to the exclusion of the more usual sea winds, implies, on mechanical grounds, an abnormal excess of pressure at the seat of their origin, relatively to that at the origin of the alternative current which they displace.

RELATION OF SNOWFALL TO DROUGHT.—In a paper communicated to the Royal Society in April 1884,[2] I set forth certain evidence, which served to show that, in many cases, an unusual persistence of westerly land winds in Northern India, and of northerly wind elements with a dry monsoon in the Peninsula, was consequent, or, at least, followed on an unusual fall of snow on the North-West Himalaya. The connection was suggested originally in the discussion of the meteorology of the year 1876, and by the further experience of 1877, and it seemed to receive confirmation again from the meteorological history of the year 1878, in which the monsoon rainfall of Northern India was greatly retarded and in the end deficient; although the deficiency was to some extent compensated by the unusual raininess both of the earlier and later months. In Kashmir, however, where the snowfall was heaviest, there was a severe famine, owing to the failure of the summer rains of that year.[3] As has been shown in the preceding historical survey, the snowfall on the North-West Himalaya was extraordinarily heavy in the winters both of

[1] The barometric anomalies of this old established station are rather doubtful for the last two years, the old instruments having been replaced by one which seems rather capricious in action. However, I do not think there is much reason to question the inference stated in the text.

[2] Proc. Roy. Soc., Vol. XXXXII, page 3.

[3] On reference to the table on page 235 it will be seen that, to the east of the Jumna, the winter rainfall was below the average.

1876-77 and 1877-78; but as far as our information goes, this was not the case in the winter of 1875-76, which, together with the spring of 1876, was remarkably dry everywhere to the east of the Sutlej, and deficient at most stations east of the Ravee. To the west of the latter river, at least as far as Peshawar, Bannu, and Kohat, the precipitation was indeed above the average, and this may also have been the case still further west in Afghanistan and on the Hindu-Kush; but on this point I have no information.

Previously, in 1877, Mr. Douglas Archibald and Mr. S. A. Hill, in discussing the rainfall of certain stations of Northern India, in connexion with the periodical sunspot variation, had independently arrived at the conclusion that the winter rains of Northern India are generally heavier when the total fall of the year is below the average, than when the summer rains are excessive; and in a subsequent Memoir on the "Variations of Rainfall in Northern India," published in the 1st volume of this serial, Mr. Hill rediscussed the subject by the light of much additional evidence, with the result of confirming his original conclusion, which he expressed in the slightly modified form, that "the winter rains are heaviest when the summer are defective, and *vice versâ*."

In my own paper, above referred to, I showed that many of the apparent exceptions to the rule, formulated by Mr. Hill, disappeared, when, for "the winter rainfall" generally, is substituted "the winter and spring rainfall on the Himalaya," since it has sometimes happened that, a deficient summer rainfall has been preceded by an excessive winter rainfall on the hill region, notwithstanding that that of the plains has been deficient.

Even thus modified, however, the winter term of the comparison is not strictly representative of that with which we are immediately concerned; for it sometimes happens, as in 1884, that the snowfall is heavy on the higher ranges when it is light on the outer Himalaya. But it is only within the last few years that any regular reports on the snowfall of the interior have been available, and, even now, they are far from having the precision of actual rainfall measurements, except at two or three stations in the inner valleys of the Himalaya, established only within the last 4 or 5 years. In noticing the subject here, I shall therefore adopt, as the best available criterion of the winter and spring snowfall, the rain and snow measurements made at stations on the outer Himalaya and the Sub-Himalaya (Kangra), as well as those on or near the western hill frontier. The following table, for the years 1864 to 1885, is somewhat more comprehensive than that published in my paper in the Proceedings of the Royal Society, and gives, as a percentage of the normal average, the total fall of each year, at each station, during the months November to May inclusive. At the foot is given, also, in the form of a percentage, the rainfall of the subsequent summer monsoon, separately, in the Punjab plains east of the Ravee, the North-Western Provinces and Oudh, and the rainfall provinces of Rajputana and Central India, as here adopted.

*Winter and Spring Rainfall of the Northern and Western Hill regions as a percentage of the corresponding averages.*

| Stations. | 1863-64. | 1864-65. | 1865-66. | 1866-67. | 1867-68. | 1868-69. | 1869-70. | 1870-71. | 1871-72. | 1872-73. | 1873-74. | 1874-75. | 1875-76. | 1876-77. | 1877-78. | 1878-79. | 1879-80. | 1880-81. | 1881-82. | 1882-83. | 1883-84. | 1884-85. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Quetta | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | 60 | 27 | 172 | 112 | 127 | 97 | 310 |
| Bannu | 138 | 100 | 118 | 118 | 228 | 80 | 26 | 50 | 102 | 78 | 90 | 76 | 114 | 168 | 263 | 137 | 28 | 64 | 38 | 28 | 64 | 159 |
| Kohat | 68 | 126 | 129 | 71 | 133 | 184 | 39 | 103 | 111 | 52 | 95 | 99 | 122 | 152 | 288 | 31 | 39 | 106 | 68 | 50 | 92 | 224 |
| Peshawar | 153 | 126 | 136 | 56 | 91 | 107 | 33 | 92 | 111 | 88 | 86 | 69 | 116 | 204 | 312 | 45 | 19 | 107 | 71 | 54 | 121 | 226 |
| Mansahra | ? | ? | ? | ? | ? | ? | 60 | ? | ? | ? | 86 | 80 | 100 | 124 | 168 | 31 | 61 | 123 | 74 | 81 | 98 | 171 |
| Abbottabad | 147 | 151 | 117 | 100 | 133 | 117 | 46 | 83 | 151 | 57 | 81 | 76 | 112 | 165 | 241 | 39 | 45 | 118 | 80 | 125 | 119 | 142 |
| Murree | ? | ? | ? | ? | ? | ? | ? | 89 | 143 | 70 | 95 | 76 | 130 | 177 | 209 | 31 | 54 | 121 | 64 | 70 | 108 | 161 |
| Dalhousie | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | 111 | 138 | 164 | 42 | 55 | 169 | ? | 77 | 131 | 159 |
| Dharmsala | 119 | 198 | 88 | 80 | 136 | 101 | 54 | 79 | 79 | 76 | 109 | 68 | 86 | 159 | 215 | 59 | 85 | 111 | 69 | 64 | 55 | 144 |
| Palanpur | ? | ? | ? | ? | ? | 130 | 55 | ? | ? | ? | 83 | 57 | 101 | 244 | 188 | 59 | 73 | 102 | 67 | 53 | 43 | 89 |
| Kangra | ? | ? | ? | ? | ? | 91 | 76 | ? | ? | ? | 124 | 90 | 82 | 189 | 244 | 59 | 64 | 125 | 98 | 57 | 44 | 105 |
| Hamirpur | ? | ? | ? | ? | ? | 111 | 87 | ? | ? | ? | 61 | 80 | 100 | 210 | 216 | 37 | ? | 108 | 78 | 57 | 44 | 113 |
| Sultanpur | ? | ? | ? | ? | ? | 170 | 66 | ? | ? | ? | 86 | 80 | 88 | 178 | 214 | 53 | 108 | 101 | 79 | 50 | 83 | 138 |
| Kotgarh | ? | ? | ? | ? | ? | 75 | 70 | ? | ? | ? | ? | 44 | 95 | 306 | 243 | 64 | 38 | 151 | 72 | 56 | 46 | 101 |
| Simla | 190 | 155 | 67 | 67 | 107 | 63 | 84 | 73 | 99 | 70 | 102 | 88 | 51 | 120 | 129 | 54 | 148 | 99 | 75 | 83 | 61 | 122 |
| Kasauli | ? | ? | ? | ? | ? | 149 | 124 | ? | ? | ? | 76 | ? | 59 | 183 | 180 | 39 | 63 | 75 | 57 | 90 | 38 | 101 |
| Chakrata | ? | ? | ? | ? | ? | ? | 92 | 46 | 67 | 54 | 64 | 85 | 98 | 180 | 222 | 62 | 120 | 120 | 99 | 94 | 49 | 148 |
| Mussooree | ? | ? | ? | ? | ? | 94 | 71 | 94 | 120 | 64 | 146 | 121 | 71 | 140 | 202 | 48 | 64 | 104 | 89 | 55 | 66 | 125 |
| Srinagar | ? | 142 | 116 | 58 | 164 | 99 | 78 | 108 | 128 | 68 | 105 | 88 | 51 | 120 | 129 | 54 | 148 | 99 | 75 | 83 | 44 | 93 |
| Pauri | 111 | 164 | 122 | 68 | 150 | 93 | 82 | 111 | 140 | 79 | 74 | 81 | 64 | 225 | 190 | 60 | 100 | 123 | 96 | 97 | 38 | 87 |
| Ranikhet | ? | ? | ? | ? | ? | ? | ? | ? | 118 | 47 | 74 | 76 | 72 | 110 | 255 | 51 | 79 | 131 | 69 | 95 | 51 | 90 |
| Almora | 73 | 143 | 143 | 79 | 123 | 115 | 83 | 111 | 134 | 77 | 95 | 105 | 90 | 134 | 209 | 61 | 85 | 135 | 74 | 105 | 35 | 88 |
| Pithoragarh | ? | 174 | 113 | 68 | 136 | 86 | 91 | 144 | 94 | 46 | 86 | 111 | 65 | 104 | 186 | 31 | 153 | 101 | 73 | 78 | 44 | 83 |
| Naini Tal | 150 | 140 | 84 | 68 | 133 | 99 | 80 | 95 | 124 | 75 | 53 | 96 | 36 | 160 | 213 | 59 | 88 | 108 | 51 | 157 | 33 | 69 |
| Champawat | ? | 157 | 109 | 73 | 110 | 72 | 66 | 185 | 64 | 53 | 94 | 87 | 42 | 105 | 216 | 33 | 136 | 131 | 79 | 102 | 31 | 87 |
| Katmandu | 43 | 167 | 74 | 81 | 98 | 73 | 80 | 93 | 79 | 69 | 69 | 112 | ? | ? | 74 | 55 | 141 | 84 | 110 | 122 | 96 | 77 |
| Means | 119 | 149 | 109 | 76 | 134 | 105 | 70 | 97 | 110 | 66 | 88 | 84 | 86 | 166 | 207 | 52 | 81 | 115 | 77 | 81 | 67 | 131 |
| | *Subsequent Summer Rainfall as a percentage.* | | | | | | | | | | | | | | | | | | | | | |
| Eastern Punjab | 82 | 118 | 100 | 99 | 41 | 96 | 91 | 79 | 153 | 111 | 96 | 161 | 85 | 52 | 110 | 86 | 101 | 110 | 84 | 68 | 122 | 103 |
| North-Western Provinces | 71 | 94 | 97 | 139 | 66 | 86 | 139 | 149 | 117 | 104 | 144 | 113 | 87 | 30 | 91 | 140 | 73 | 100 | 97 | 73 | 123 | 130 |
| Rajputana | 101 | 75 | 109 | 100 | 52 | 99 | 94 | 100 | 112 | 107 | 101 | 129 | 120 | 33 | 112 | 117 | 90 | 127 | 114 | 73 | 125 | 104 |
| Central India | 77 | 104 | 109 | 154 | 64 | 103 | 104 | 129 | 106 | 112 | 126 | 123 | 116 | 52 | 93 | 98 | 79 | 107 | 121 | 85 | 128 | 93 |

I have carried this table on to the year 1885, inasmuch as that year is one of peculiar interest in the present connexion. But I will first notice the evidence of the earlier years. The four years, with the heaviest winter and spring precipitation, are 1865, 1868, 1877 and 1878; and two of these (probably three, at least,[1]) had the heaviest Himalayan snowfall on record.

Now 1865 was the year of the drought which caused the Orissa famine. The autumnal rainfall failed along the whole eastern coast, and the failure extended inland to Mysore, Bellary, Hyderabad, South-West Bengal and Behar. In Rajputana, and more or less in most parts of Western India, except Sind and Cutch, the summer rainfall was more or less below the average. 1868, again, was a famine year in North-Western India; and in the North-West Provinces, Rajputana, Central India and the South-Eastern Punjab the monsoon rains failed completely. The history of 1877 and 1878 has been given in detail in the foregoing retrospect; and it has been shown that, in the former year, the rains failed almost to the same extent and over the same tract as in 1868; while in 1878, except in Kashmir, they were only retarded, the drought lasting up to the end of July. In Kashmir, however, the famine was most disastrous.

The years with the lightest winter and spring rainfall were 1870, 1873, 1879 and 1884. Two of these, *viz.*, 1870 and 1879, were years of good and well distributed summer rainfall, and a third, 1884, was that with the most general copious rainfall in the list. But in 1873 the rainfall was deficient in nearly all parts of India. Hence it does not always follow that a dry winter and spring are the precursors of plentiful summer rains; however true it may be that an excessive precipitation on the mountains in those seasons has hitherto been the forerunner of drought. Other years, in which the summer rainfall of Northern and Western India was deficient after a fall below the average in the earlier months of the year, are 1880 and 1883. In the famine year 1876, also, the latter was light everywhere to the east of the Ravee. With regard to this last year, it is indeed to be observed that the deficiency of the summer rains was much greater in the Peninsula than in Northern India, and the dry northerly current which causes drought in the former may not improbably come from a more westerly source than that which immediately affects the Eastern Punjab and the Gangetic plain. The precipitation of the winter evidently increased to the north-west, and may have been still more excessive on the Hindu-Kush, the Safed Koh, &c. This, however, can only be put forward as a suggestion, not as an argument; and it may well be that the drought of 1876 depended entirely on other causes, one of which has already been pointed out.

The other two years, *viz.* 1880 and 1883, however, are only apparent, and not real exceptions to the rule; in the first, as has been shown in the foregoing section, the monsoon rainfall of July penetrated far into the North-West Himalaya, and produced a heavy and very unusual fall of snow on the higher ranges, of which special reports were transmitted to the Meteorological Office, from Gilgit in the north-west corner of Kashmir, and also from Lahoul. This fall was the immediate forerunner of the drought which set in at the end of July and lasted all through August, and was most severe in Northern and North-Western India, but also affected a considerable portion of the Peninsula.

[1] In the Simla Guide (published in 1877 it is written—"In 1866, a very severe winter. Snow fell on the 3rd February at Simla to a great depth, over 4 feet." But a reference to the Simla rainfall table, in the appendix, shows that February and March 1866 were rainless at Simla, and that the whole season was remarkably dry, whereas the corresponding months of 1865 had the heaviest precipitation recorded in the table. The date 1866 is probably therefore an error for 1865.

In the second case, that of 1883, although, on the whole, the winter and spring rainfall on the North-West Himalaya had been below the average, there were two very heavy falls of snow, one at the end of January, which was restricted to the outer Himalaya and the first snowy range, and was followed by three and-a-half months of very dry weather, during the first two of which over a great part of Northern India it was exceptionally cold, and a second at the end of May, very late therefore in the season. In Ladakh, indeed stormy weather set in at the beginning of May and lasted nearly a month. This thickened the snows around the Indus Valley and brought the snow line down to the ordinary March level.

It was this unusual fall of snow in the last week in May which prompted the publication of the forecast, quoted at page 13 of Vol. XXXVIII of Proceedings of the Royal Society. It ended with the warning that "we must be prepared for a long spell of dry weather and a retarded rainfall in the Upper Provinces." How this was justified by the event has already been recounted in the previous section (pages 219 and 220).

Although, then, both 1880 and 1883 were exceptions to the ordinary rule that a light and scanty winter and spring rainfall on the North-West Himalaya is followed by a good monsoon rainfall on the plains of Northern India, they afford somewhat striking instances of the sequence of drought on an unusual fall of snow on the North-West Himalaya, and it seems probable that the occasional failure of the former rule is owing to the fact that its validity is really only secondary. It is valid only in so far as the copiousness of the winter rainfall is a true criterion of snowfall; and this does not invariably hold good. Besides, a very late and unseasonable fall, such as those of 1883 and still more that of 1880, would seem to be much more efficacious in bringing down the land winds to the exclusion of the monsoon rains than even heavier falls early in the season.

But almost every year affords instances of a similar sequence at other seasons. The long spell of dry cool weather with westerly winds in February, and again in April and May 1883, have already been cited, as following on a heavy fall of snow at the end of January, and further falls in March; in the autumn of the same year, an unusually early and copious fall of snow, on the 10th November, ushered in cool dry weather with north-west winds, which lasted to the end of the year; and now in this year in which I write (1887), a heavy fall of snow on the whole Himalayan range in the middle of January brought in for the first time in the season a spell of cool weather with dry northerly and westerly winds which has lasted all through February and March.

FORECASTS OF THE MONSOON RAINS.—Since 1882, a forecast of the monsoon prospects has been issued in each year, based on such considerations as have been here set forth. That of 1883 has been just noticed above. 1884 was also a year of striking characteristics: the earlier months were dry on the plains, but there were several falls of snow on the hills; first a heavy fall at the end of January, and again in the beginning of February, the beginning of March, and in April, when the fall was again heavy. They were chiefly on the higher ranges. At stations on the outer Himalaya, there was very little snow through the season, and that in April was restricted to the range north-west of the Sutlej. In Kumaon, the fall was light. In Kashmir, where the fall was very heavy, fresh snow fell on the hills up to the 19th May. Under these circumstances, the forecast, issued on the 7th June, was to the effect that "a weak or interrupted monsoon might be expected in the earlier months, in part or parts of North

Western India, extending possibly to the northern portion of the Bombay Presidency and Rajputana."

The result was that, on the 19th June, rain became pretty general throughout the country, exceptions being portions of Bundelkand and the North-West Provinces, Sind and Central India. But, on the 22nd, the rainfall on the west coast was checked, and the break spread gradually from the west coast to a very large part of India. Towards the close of the month, precipitation had entirely ceased in Guzerat, Central India, Rajputana, and on the plains of the Punjab and the North-West Provinces. In July, over the greater part of the Punjab, as well as in Rajputana, Sind, and Guzerat, rain of any consequence was almost entirely wanting during the first fortnight, as was also the case in some parts of the Carnatic, Mysore, the Ceded districts of Madras and the Deccan. But, on the 16th, a change set in, and from the 20th to the end of the month the rains were general and abundant, with the exception of the Madras Presidency.

Hence, it seems that, as far as it went, the predicted retardation or interruption of the rains of the early part of the monsoon of North-Western India, was fully justified by the event. After a general burst, for a few days, in the latter part of June, the rains of all Western and North-Western India were entirely suspended for three weeks or more, and even up to August, they were somewhat defective in the Punjab. But the condition there existing did not operate through the whole of the monsoon, and the latter months brought abundant rain.[1]

In the following year, 1885, the circumstances were more striking. Everywhere to the north-west of Jumna, the rainfall of the earlier months was equal to, or exceeded, the average, and increased rapidly westward; so that, to the west of the Indus, the fall was double the usual amount; and, at Quetta, more than treble. In a memorandum dated the 21st May, published in the *Gazette of India*, it was reported that "the snowfall on the Himalaya appears to have been universally heavy during the past season, and it has received continual additions up to the present time"; that "the unusual weather of April and May, had made large additions to the snows of the North-West Himalaya, preserving thick beds down to 11,000 feet, even on the outermost hills." From Lahoul it was reported that the spring was cold and exceedingly wet, and the fields could not be sown, as usual, owing to their being covered with 1½ feet, or more, of unmelted snow. The weather in the Punjab was unusually cool, and the barometer persistently high; the pressure being greater on the plains than on the mountains, and greater in North-Western India than on the east and south. More or less, the pressure was above the average all over India.

North and north-west winds were unusually prevalent in May, blowing however more steadily down the western side of the Peninsula, in the Konkan and Western Deccan, than in Upper India.

From these data, it was inferred that "the influx of the monsoon rains on the west coast and in Southern and Western India generally, is likely to be retarded; "but it was pointed out that there was "nor eason for anticipating more than a retardation of the rains on the Bombay side, and none to anticipate even any retardation on the Bengal side. It was anticipated that the north-western part of the Peninsula, the Bombay Presidency, would be more likely to suffer than the Gangetic plain and Rajputana, chiefly because,

[1] This account is slightly abridged from the Report on the Administration of the Meteorological Department in 1884-85, page 18. A fuller description is given in the Report on the Meteorology of the year.

in the spring months, the north-west winds had shown greater unusual persistency in the Konkan and Northern Deccan, than had the west and north-west winds of Upper India. The conditions more resembled those of 1876 than those of 1877, and although the determining causes of this variation are unknown, it is certain that such differences once established, are very likely to last.

The result very fully justified the forecast. To quote from the monthly summaries of the weather telegrams,—in June, in Bombay, "the burst of rain which usually characterizes the setting in of the monsoon, has not occurred during the month [as stated at page 26, the monsoon usually sets in, in the first or second week of June], and the winds over that region appear to have been abnormally dry; and further southward, *i.e.*, on the Malabar coast, though the winds appear to have brought up the normal amount of moisture,[1] it seems to have been deposited only on the face of the Western Ghâts, and the stations in the Deccan and Hyderabad show a great deficiency of rainfall. The weather in the Berars, Khandesh and Guzerat, has been similar to that prevailing in the Konkan, the winds having been unusually dry." On the Bengal side, the rains set in on the 16th, which is about the usual date.

In July, "there was heavy rain at Mangalore on the 1st, and on the following eight days, it was heavy on that coast, spreading "as far as Ratnagiri, without however reaching Bombay." On the 17th, the first heavy rain fell at Bombay, producing extensive local floods, but "in the eastern and central parts of the Peninsula, the normal westerly winds appear to have been exceptionally dry; and Mysore, Bellary, and the Carnatic had even less than the small average rainfall. Further north, in the Northern Circars, Orissa, Chutia Nagpur, and Lower Bengal, there was a slight deficiency, but in Assam, Cachar, Northern Bengal, and over the whole of the North-West Provinces and Oudh, the rainfall was excessive." The report, written on the first days of August, concluded, "The figures for the season, up to date, show that the rains have been unfavourable in two regions; one includes the Konkan, Khandesh, and the Bombay Deccan, where the amount of rainfall for the two months June and July has been only from one-fifth to one-half the average amount; and the other in the Punjab. In all other parts of the country the seasonal average has been fairly well maintained."

The drought in Western India, with only the local interruption above noticed, lasted nearly to the middle of August. "During the first ten days, the rainfall on the west coast was insignificant, but, on the 12th, it became heavier, and during the week following heavy showers fell at the majority of the peninsular stations."

The last forecast issued was in 1886, a year of moderate winter and spring snowfall, and in which the weather of the spring months seemed to justify a favourable augury. This anticipation was entirely fulfilled. The rains set in about the usual time, and were, on the whole, well distributed. They were rather below the average in the Central Provinces, Central India and Sind, and a small portion of Rajputana; but, both in the Peninsula and the greater part of Northern India, they were of average or more than average copiousness.

CYCLICAL VARIATION OF THE RAINFALL OF INDIA.—A few years ago, the question whether rainfall is subject to a cyclical variation, coincident with that of sunspots,

[1] Mr. Dallas, whose report is here quoted, does not state his reason for this view, which seems to me hardly in accordance with the facts.

magnetic declination and disturbances, and auroras, attracted much attention; and it was thought by some, that the records of the rainfall of Southern India, or rather, to speak more precisely, those of the Madras observatory, afforded a somewhat striking instance of such a variation. The speculation had a more general interest than would have attached to it merely as a subject of abstract physical enquiry. It was pointed out that severe droughts, producing famine, had occurred in Southern India, repeatedly about the epoch at which the sunspots are at their cyclical minimum: and so strongly did this coincidence impress at least one eminent man of science, that, if a paragraph that went the round of the Indian newspapers some years since had any claim to authenticity, he has confidently predicted another disastrous failure of the Madras rainfall for 1887 or 1888. *Absit omen!*

The sunspot period is, however, not the only cycle, according to which rainfall has been supposed to vary. It is a belief of some persons that, in the Punjab, the quantity of the rainfall, as well as cholera epidemics, and I believe other variable conditions of the social well-being, are subject to a triennial rotation, and other periods again have been suggested in Ceylon. For a very comprehensive summary of such speculations, regarded from a purely empirical point of view, we are indebted to that excellent astronomer and physicist Mr. H. C. Russell, the Government Astronomer of New South Wales, who communicated a paper on this subject to the Royal Society of Sydney in 1876. In this paper, Mr. Russell adduces the following supposed periodicities, as having been advocated, at different times, by persons who had given attention to the variations of the rainfall. They comprise cycles of 2, 3, 5 or 6, 6 or 7, 9, 10, 11, 12, 13, 17, 19, 30 and 56 years; and for several of these periods, he quotes an amount of *primâ facie* evidence, equal, I think, to any that has as yet been urged in support of the supposed periodicity of the Indian rainfall. To this list Mr. Fergusson adds one of 33 years, or three cycles of 11 years, which is considered to rule the seasons in Ceylon.

Speculations of this kind doubtless have a peculiar fascination for some minds; and it is the more necessary to subject them to rigorous scrutiny, and to test them by the widest possible array of facts. That so many, indeed for the lower numerals so nearly an exhaustive series of cycles, have been put forward, supported, in each case, by an amount of *primâ facie* evidence that has appeared convincing to reasonable minds, may well induce scepticism, whether all such cycles are not mere figments of the imagination. And in the large majority of cases they probably are so.[1]

But when a real and unquestionable cycle has been established on ample evidence in one class of phenomena, which, on physical grounds, we are sure, is intimately related to those which influence the condition of our atmosphere; and such is the case with the changes of the sun's photosphere, the hypothesis presents itself with better credentials; and it is worth our while to examine carefully the evidence at our command, to see whether a similar cyclical variation can be detected in the rainfall, even though it be small in amount and to a great extent obscured by irregular, and non-periodic vicissitudes.

I will in the first place take the rainfall of India, as a whole, for 22 years, (two complete sunspot cycles,) as given in the final columns of the table on page 151, completed by the data for 1884 and 1885, given in the official reports on the meteorology of

[1] Some time ago, as a curious exercise, I took a long series of Indian rainfall registers, and arranged them successively in biennial, triennial, &c., up to quinquennial series, and taking the means of the successive terms of each series in order, I found that a cyclical variation could always be brought out, but its amplitude proved never very different from the probable error of the average, computed from the number of years in each case.

those years. The yearly variation from the average rainfall of the country is as follows in each year of the series. It is represented on fig. 3, Plate XIX.

*Annual Mean Anomaly of the Total Rainfall of India, exclusive of the Burmese peninsula.*

| Years. | Inches. | Years. | Inches. |
|---|---|---|---|
| 1864 | −5·5 | 1875 | +2·4 |
| 1865 | −0·8 | 1876 | −4·5 |
| 1866 | −2·1 | 1877 | −4·3 |
| 1867 | +2·8 | 1878 | +6·3 |
| 1868 | −6·6 | 1879 | +1·7 |
| 1869 | +0·4 | 1880 | −1·6 |
| 1870 | +1·5 | 1881 | +0·1 |
| 1871 | +0·9 | 1882 | +2·6 |
| 1872 | +2·3 | 1883 | −0·1 |
| 1873 | −4·5 | 1884 | +1·7 |
| 1874 | +4·6 | 1885 | +1·1 |

These figures are the mean outcome of a larger number of registers, and perhaps, taken together, are more truly representative of the rainfall of a very large area of country than any, I believe, yet appealed to in elucidation of this question. But it must be confessed that they exhibit but little appearance of any periodical variation. Taking the years of striking deficiency (exceeding 10 per cent.) of the rainfall of the whole country, we find five in the 22 years, *viz.*, 1864, 1868, 1873, 1876, and 1877, *i.e.*, the first four separated by intervals of three years, four years, and two years; then one follows in immediate succession, and the series is concluded by an interval of eight years without any. In the whole series, there are but two years in which the rainfall has been more than 10 per cent. in excess of the average; and these are separated by an interval of only three years; the first being preceded by ten years, and the second succeeded by seven years of more or less average or deficient rainfall.

In order to ascertain whether any periodical variation underlies these irregularities, I have computed substituted values for as many years as the series admits of, by successively multiplying 5, 7, 9 or 11 consecutive terms by the coefficients representing the numerical values of the corresponding numbers of terms of the formula of the expanded binomial, and dividing the sum of the products by the sum of the multipliers. The last of these, in which each term is computed from eleven consecutive terms by the formula

$$f_1 = \frac{a + 10\,b + 45\,c + 120\,d + 210\,e + 252\,f + 210\,g + \&c. \ldots + k}{1024}$$

gives the following series, represented also by the dotted line on fig. 3, Plate XIX:

| Years. | Inches. | Years. | Inches. |
|---|---|---|---|
| 1869 | −0·56 | 1875 | −0·02 |
| 1870 | +0·08 | 1876 | −0·33 |
| 1871 | +0·48 | 1877 | −0·11 |
| 1872 | +0·56 | 1878 | +0·48 |
| 1873 | +0·52 | 1879 | +0·84 |
| 1874 | +0·37 | 1880 | +0·80 |

This process, which is based on the theory of chances, includes correction for the extreme case, on the assumption of an eleven-year cycle, of any phase of that cycle being proportionally distributed throughout; yet nothing like evidence of such a cycle appears in the final figures. Two minima, with an intervening maximum, appear at an interval of 8 or 9 years, and whereas the beginning of the eleven-year period is not far from a minimum, the end would seem to be not far from a maximum. It may therefore be confidently concluded that *the total rainfall of India, exclusive of that of Ceylon and the Burmese peninsula and (of course) of the seas around, affords no evidence whatever of an eleven-year periodical variation.*

CYCLICAL VARIATION OF THE RAINFALL OF SOUTHERN INDIA.—But, although the rainfall of the country, as a whole, may not be subject to this periodical variation, it is still possible that that of certain seasons, or of certain tracts, may thus vary; and, indeed, two such cases have been adduced, *viz.*, the Madras rainfall by Mr. Norman Lockyer, and subsequently by Dr., now Sir W. W. Hunter, and the winter rainfall of Northern India by Mr. S. A. Hill. These cases I shall now examine.

The rainfall registers of the Madras observatory have been more than once discussed, and I need say nothing further respecting them in this place. It will be more satisfactory to appeal to those of the Carnatic generally, the province in which Madras is nearly centrally situated, and which receives its chief rainfall at the same season. The following are the mean anomalies of the rainfall for each of the 22 years 1864—1885, taken, with the exception of the two final years, from the Table on page 149. They are represented by the zigzag line on fig. 4, Plate XIX.

| Years. | Inches. | Years. | Inches. |
|---|---|---|---|
| 1864 | — 5·0 | 1875 | — 5·2 |
| 1865 | — 5·0 | 1876 | —13·2 |
| 1866 | — 4·0 | 1877 | + 8·3 |
| 1867 | — 9·4 | 1878 | 0 |
| 1868 | — 4·6 | 1879 | + 2·3 |
| 1869 | — 0·3 | 1880 | + 7·0 |
| 1870 | + 1·8 | 1881 | — 2·1 |
| 1871 | + 5·5 | 1882 | + 4·4 |
| 1872 | +11·5 | 1883 | + 5·2 |
| 1873 | — 0·1 | 1884 | +11·6 |
| 1874 | + 7·3 | 1885 | — 1·1 |

In this table, the first 13 years, with one exception, show an almost regular increase and decrease, which approximates in a very remarkable manner to the course of the sun-spot variation. In 1867, the rainfall, which had been low during the three previous years, reached a minimum. This was also a year of minimum sun spots. From 1867, the rainfall increased steadily, year by year, till it reached a maximum in 1872, two years later than the sun spot maximum. Then, with one irregularity in 1873, it declined steadily till 1876, when the sun spot proportion, although not at its minimum, (which did not occur till two years later,) was within a few per cent. of it. But here the coincidence was seriously interrupted. The rainfall was excessive in the following year, again in 1880, and after a drop below the average in 1881, rose steadily again to a principal maximum in 1884, a year in the beginning of which occurred the maximum of sunspots.

Even admitting the irregularities of the later years, the number of coincidences presented by this series is certainly very striking. By treating the figures of the series as in

the case of the rainfall of India, multiplying by the numbers of the fifth line of the arithmetical triangle, *(vide supra)* the greater irregularities of the years since 1876 are much reduced, while the principal maxima and minima retain the same relations as before to those of the sunspot epochs. The resulting numbers are given in the following table, and the variations shown graphically by the dotted curves on fig. 4, Plate XIX—

*Smoothed Values of the Annual Variations of the Carnatic rainfall from its average.*

| Years. | Inches. | Years. | Inches. |
|---|---|---|---|
| 1866 | −5·7 | 1875 | −2·9 |
| 1867 | −6·0 | 1876 | −3·7 |
| 1868 | −4·3 | 1877 | −0·4 |
| 1869 | −1·1 | 1878 | +2·3 |
| 1870 | +2·4 | 1879 | +3·0 |
| 1871 | +5·4 | 1880 | +3·0 |
| 1872 | +6·2 | 1881 | +2·5 |
| 1873 | +4·7 | 1882 | +3·6 |
| 1874 | +1·3 | 1883 | +5·8 |

Average 34·9 ins.

Thus treated, the more striking irregularities of the later years are very much reduced, and the series shows a very regular increase from a minimum in 1866-67 to a maximum in 1872, and an equally regular decrease to a minimum in 1876, followed by a rapid rise and slight oscillation for four years, after which it rose to a second maximum in 1883, or perhaps 1884.

Assuming provisionally, that we have here to deal with a real cyclical variation, and not merely a remarkable series of coincidences, it is of interest to ascertain, approximately, the magnitude of the oscillation, and the extent to which, in any year, the rainfall is likely to deviate from the amount, indicated by the periodic term, corresponding to the year. To do this, I have taken the mean of each pair of corresponding years in the two cycles (assumed to be each of exactly eleven years' duration), and have thence computed the constants of the first two periodic terms of the harmonic formula, from the initial epoch 1st July 1864. These have the values—

$$U' = 5'340 \qquad U'' = 2'873$$
$$u' = 206^\circ\ 29' \qquad u'' = 247^\circ\ 15'$$

The periodical rainfall of each year thence computed is as follows, and the variations represented graphically by fig. 13, Plate XIX:

*Table of Cyclical Variation of the Carnatic rainfall as observed and computed.*

| Years. | Mean Rainfall Anomaly. | | Diff. r—c. | Years. | Mean Rainfall Anomaly. | | Diff. r—c. |
|---|---|---|---|---|---|---|---|
| | Registered. | Computed. | | | Registered. | Computed. | |
| | Inches. | Inches. | Inches. | | Inches. | Inches. | Inches. |
| 1864 and 1875 | −5·1 | −5·0 | −0·1 | 1870 and 1881 | −0·2 | +0·8 | −1·0 |
| 1865 „ 1876 | −9·1 | −6·7 | −2·4 | 1871 „ 1882 | +5·0 | +4·4 | +0·6 |
| 1866 „ 1877 | +2·2 | −4·4 | +6·6 | 1872 „ 1883 | +8·4 | +7·3 | +1·1 |
| 1867 „ 1878 | −4·7 | −1·5 | −3·2 | 1873 „ 1884 | +5·8 | +5·9 | −0·1 |
| 1868 „ 1879 | −1·1 | −0·6 | −0·5 | 1874 „ 1885 | +3·1 | +0·5 | +2·6 |
| 1869 „ 1880 | +3·3 | −0·7 | +4·0 | | | | |

and the mean annual deviation of the recorded rainfall from these hypothetical values is $\pm 3{\cdot}5$[1] inches, or but little more than one-fourth the amount of the cyclical variation. As the average rainfall of the Carnatic is 34·9 inches, a periodical variation of 6·7 inches in defect, and 7·3 inches in excess amounts to nearly one-fifth deficiency, and more than one-fifth of excess, recurring at intervals of eleven years. I compute the probability of this cycle as compared with that of an invariable average to be 655 : 1.[2]

It has been shown, in the first part of this Memoir, that the chief rain of the Carnatic falls in October and November, and, although other parts of the Peninsula also receive a considerable amount at this season, or a little earlier, it is, in their case, a less dominant feature of the meteorology. It is, therefore, hardly a matter for surprise that no other province affords equally distinct evidence of a periodical fluctuation, coincident with that of Madras. Nevertheless, unless there be some action peculiar to the season of the Carnatic rainfall, which is in complete abeyance at other times of the year, and nothing of the kind has been indicated in the foregoing discussion, we might still expect that, to some extent at least, a variation of a more or less similar character would be discoverable in the registers of the neighbouring provinces of the Peninsula. And there is the more reason to expect this, since the famines of the Peninsula, which have also been shown to recur at intervals of about 11 or 12 years,[3] have been by no means localised in the Carnatic, but have been sometimes most severe in the Carnatic, sometimes in Bellary, Hyderabad, or the Deccan, sometimes in the districts extending between the Godavery and Orissa, and indeed other parts of the Peninsula have always been more or less involved in any drought that has been severe in the Carnatic.

In order to test by a preliminary trial whether other provinces show any distinct periodicity in their rainfall, I have in the first instance reduced the recorded annual fluctuations by computing new mean annual values from the figures of every five consecutive years, in the same manner as in the case of the Carnatic rainfall. I have done this separately for the four rainfall provinces, Mysore and Bellary, Malabar, the North Deccan and the Konkan. Most of the Hyderabad registers scarcely extend far enough back to be usefully dealt with in this way. The results are given in the following table, and represented in the four curves (figs. 5, 6, 7 and 8) in Plate XIX:—

*Smoothed Values of the Annual Variation of the Rainfall of Mysore, &c., Malabar, the Konkan and North Deccan.*

| Years. | Mysore, &c. | Malabar. | Konkan. | North Deccan. | Years. | Mysore, &c. | Malabar. | Konkan. | North Deccan. |
|---|---|---|---|---|---|---|---|---|---|
| | Inches. | Inches. | Inches. | Inches. | | Inches. | Inches. | Inches. | Inches. |
| 1866 | —0·9 | —12·2 | — 0·5 | —3·0 | 1875 | —2·4 | —4·7 | + 4·2 | —0·8 |
| 1867 | —1·0 | —15·8 | — 2·8 | —2·7 | 1876 | —5·1 | —7·0 | —11·5 | —2·8 |
| 1868 | —0·6 | —12·2 | — 5·7 | —1·2 | 1877 | —1·2 | +2·3 | —10·9 | +0·4 |
| 1869 | —0·2 | — 8·4 | — 8·4 | +0·6 | 1878 | +3·2 | +8·8 | + 2·9 | +3·7 |
| 1870 | —0·4 | — 3·5 | —12·9 | +0·7 | 1879 | +3·0 | +1·9 | + 3·2 | +2·2 |
| 1871 | —1·1 | + 2·4 | —14·6 | —1·0 | 1880 | +0·8 | —7·4 | — 6·5 | —0·5 |
| 1872 | —1·0 | + 5·6 | — 8·6 | —1·6 | 1881 | +0·3 | —2·9 | — 4·9 | +0·3 |
| 1873 | +1·3 | + 6·5 | + 2·4 | +0·4 | 1882 | +1·7 | +8·2 | + 6·3 | +2·6 |
| 1874 | +1·9 | + 3·7 | +10·8 | +1·7 | 1883 | +1·5 | +7·6 | +11·4 | +2·1 |

[1] Computed from the differences of each year, not those of the biennial means.
[2] See Note at the end of this Section, p. 254.
[3] See *e.g.*, Report of the Indian Famine Commissioners, Part I, page 23.

Now, following the general indications of this table, but restricting ourselves to the exact data set forth in that on page 149, it may be observed that, in 1867, all had a more or less deficient rainfall, and especially the Malabar Province, where both the succeeding and following years were of the same character. In the Konkan, the greatest deficiency centered in the four years 1868 to 1871, and especially the last; and the interior of the Peninsula had two minima, sharing, in a minor degree, the deficiency of both the west coast provinces in succession. It was the first of these periods of minimum that corresponded to the great drought of the Carnatic. About 1873 and 1874 the figures are all above the average, due to the general excess of 1874, together with that of one or more antecedent or subsequent years. Here again, the period of excess was earlier by a couple of years in Malabar than in the Konkan, and in the provinces of the interior intermediate, these sharing the conditions of both. The maximum of Malabar was coincident with that of the Carnatic. Then followed two years of deficient rainfall; in Malabar in 1875 and 1876 (the latter the famine year in the Carnatic), and in the Konkan in 1876 and 1877. Of the provinces of the interior, the southern shared the deficiency of Malabar and the Carnatic, the northern that of the Konkan; (the first year of drought being common to both). The year that followed, 1878, was one of excessive rainfall in all these provinces, but not in the Carnatic, while in Northern India it was a season of retarded rainfall, and, as regards the summer monsoon, one of marked deficiency. 1880 and 1881 were again years of deficient rain, but 1882, 1883, and 1884 were all years of more or less excess, tending to a maximum in 1883, as in the Carnatic.

There was then, as might be anticipated, a certain amount of coincidence between the fluctuations of the rainfall of the Carnatic and that of the Peninsula generally; inasmuch as the epochs, both of the minima and maxima of the former, corresponded to epochs of prevailing deficiency or excess in the latter. This will be more clearly shown if, multiplying the above figures and also the anomalies of the several provinces in Table A, page 149, by the areas of the individual provinces, separately given on pages 13 and 14, and dividing the sum of the products by the sum of the areas, we obtain the mean computed anomaly for the whole area. This is done in the following table. From 1878, the figures for Hyderabad are included. The resulting curve is shown in fig. 9, Plate XIX.

*Original and smoothed values of the mean annual variation of the rainfall of the western provinces of the peninsula.*

| Years. | Original. | Smoothed. | Years. | Original. | Smoothed. | Years. | Original. | Smoothed. |
|---|---|---|---|---|---|---|---|---|
| 1866 | −3·7 | −3·0 | 1872 | + 0·7 | −1·2 | 1878 | +13·8 | +4·0 |
| 1867 | −4·8 | −3·6 | 1873 | − 4·7 | +1·8 | 1879 | + 1·4 | +2·9 |
| 1868 | −2·9 | −2·9 | 1874 | +15·3 | +3·1 | 1880 | − 2·1 | −0·9 |
| 1869 | −1·5 | −1·9 | 1875 | − 1·9 | −1·3 | 1881 | − 7·7 | −0·6 |
| 1870 | −0·1 | −1·8 | 1876 | −16·2 | −5·2 | 1882 | + 8·9 | +2·9 |
| 1871 | −5·1 | −2·2 | 1877 | − 1·7 | −1·3 | 1883 | + 7·4 | +3·8 |

The chief differences between the above table and that for the Carnatic are due to the deficiency of rain in some of the western provinces of the Peninsula in 1871 and 1873, and the remarkable excess in 1878; but for which, the general course of the fluctuation

would have been very similar. It may then be concluded that the periodical variation of the rainfall, which is so marked in the Carnatic, or, at least, has been so for the last 22 years, is also to be detected in that of the Peninsula; but that, in the western provinces, more especially, it is liable to great disturbances, which apparently affect the Carnatic but slightly. Of the years 1871 and 1873, I can only remark that, throughout the Gangetic plain, in the North-West Provinces and Oudh, Behar and Lower Bengal, 1871 was the wettest year on record, and also in Pegu; while 1873 was one of generally deficient rainfall. 1878 was in many respects an exceptional year. Although on the general average of India proper, it was the wettest year on record, the rains were retarded in North-Western India, up nearly to the end of July; and in the Gangetic plain and the Central India plateau, there was a considerable deficiency, while in all parts of the Burmese peninsula, it was one of the driest years on record. The snowfall of the earlier months on the mountains around Kashmir was also the heaviest, and was followed by a severe famine in that valley plain. While, then, the rain was concentrated in the north and west of intertropical India, in Northern India and the Malay peninsula there was more or less drought.

CYCLICAL VARIATION OF THE WINTER RAINFALL OF NORTHERN INDIA.—The results of Mr. Hill's investigation of the winter rainfall of Northern India are given at length in the 7th Memoir in the first volume of this serial. That Memoir deals principally with the rainfall registers of 20 stations, in various parts of Northern India (10 on or near the Himalaya, and 10 on the plains of the Punjab, the Gangetic valley and the Nerbudda), which stations were selected, chiefly, as those which furnished registers for the longest periods. Altogether, they extend over four sunspot cycles of 11 years each, one being represented, however, by only one station, another by two, a third by five, and the fourth by 17. With these data, he finds that the years of maximum winter rainfall of the four cycles were 1842, 1854, 1865 and 1877, giving intervals of 12, 11, and 12 years respectively, and the minimum years were 1838 or 1840, 1848, 1860 and 1873, so that the minimum recurred at intervals of 8 or 10, 12 and 13 years. The years of minimum sunspots were 1843, 1856, 1867 and 1878, which therefore followed those of maximum winter rainfall by one, two, two and one years respectively; and the years of maximum sunspots were 1839, 1848-49, 1859-60 and 1870, which, excepting the last, which differed by three years, were almost exactly coincident with those of minimum rainfall. There were, however, several intermediate years of excessive or deficient rainfall, surpassing, in these respects, the maxima or minima of other cycles.

In a postscript to his Memoir, Mr. Hill has retested his conclusions, by a comparison of the registers of from 7 to 44 stations in the North-West Provinces, extending from 1844 to 1878 (34 years), during five of which, indeed, the majority are defective. He finds that the figures, afforded by these more abundant data, agree fairly well with those previously obtained; but that the mean amplitude of the variation is somewhat less than when the wider area, with a larger proportion of Himalayan stations, is included in the calculation.

The greater part of another cycle has passed away since Mr. Hill undertook the discussion of this subject; and were it needful, it might be of interest to verify his conclusions by the light of the further evidence, now at our command, for the same area. But having observed, when dealing with the relations of the snowfall to the summer rain-

fall, that the opposition, first detected by Messrs. Hill and Archibald, between the winter and summer rainfall of Northern India, was manifested much more distinctly between the winter and spring rainfall of the Himalaya on the one hand, and the summer rainfall of the plains on the other; it has occurred to me to try whether, in like manner, the periodical variation, indistinctly exhibited in the rainfall of Northern India generally, is not more distinctly shown by the rainfall of the mountain region, where the winter rainfall occurs most regularly and in greatest abundance. On referring to the line of means of the Himalayan stations in the table on page 235, it will be observed that the winters (and springs) with the highest rainfall are those of 1864-65, 1867-68, 1876-77, 1877-78, and 1884-85, the last, however, only to the west of the Jumna. Now 1867 and 1878 were years of minimum sunspots. The winter of 1884-85 was only a year after a maximum; but a retarded maximum, followed by a rapid fall. On the other hand, the lightest winter rainfall has been in 1872-73, 1878-79, and 1883-84; the first, two years after a sunspot maximum, the second immediately following a minimum, and the last coinciding with a maximum. The two epochs of minimum sunspots, therefore, coincided within six months or so with two, and within 18 months with a third, of the five winters of greatest rainfall; while of the two sunspot maxima, included in the period dealt with, one preceded a winter of minimum rainfall by two years, the other coincided with one.

So far the coincidences are striking; even though the series affords also instances of winters of equally marked characteristics, whether of excess or defect, which have no such critical relations.

To test the coincidence more thoroughly therefore, I have, as in former cases, sought to bring the underlying periodicity into greater prominence, by computing a substituted value for each year, from five consecutive terms, with the aid of the same number of factors of the arithmetical triangle. In the following table I give, in the first column, the year, in the second the mean percentage of the Himalayan winter and spring rainfall, (November to May,) from the table on page 235; in the third the smoothed or computed values; and, in the fourth, Wolf's sunspot numbers. The data of the rainfall columns are represented by the zig-zag line and dotted curve respectively in fig. 11, Plate XIX.

*Table of Himalayan winter and spring rainfall as percentages of the average, as registered and as corrected, together with Wolf's sunspot numbers.*

| Years. | Rainfall percentage. | | Sunspot numbers.* | Years. | Rainfall percentage. | | Sunspot numbers.* |
|---|---|---|---|---|---|---|---|
| | Observed. | Computed. | | | Observed. | Computed. | |
| 1863-64 | 119 | ... | 45·3 | 1874-75 | 84 | 89 | 30·8 |
| 1864-65 | 149 | 126 ? | 38·3 | 1875-76 | 86 | 113 | 14·2 |
| 1865-66 | 109 | 113 | 23·8 | 1876-77 | 166 | 144 | 11·8 |
| 1866-67 | 76 | 105 | 11·3 | 1877-78 | 207 | 143 | 7·8 |
| 1867-68 | 134 | 107 | 22·3 | 1878-79 | 52 | 109 | 4·7 |
| 1868-69 | 105 | 101 | 55·6 | 1879-80 | 81 | 90 | 18·7 |
| 1869-70 | 70 | 92 | 106·5 | 1880-81 | 115 | 91 | 42·8 |
| 1870-71 | 97 | 92 | 125·1 | 1881-82 | 77 | 86 | 56·9 |
| 1871-72 | 110 | 93 | 106·4 | 1882-83 | 81 | 76 | 61·6 |
| 1872-73 | 66 | 85 | 84·0 | 1883-84 | 67 | 88 ? | 63·6 |
| 1873-74 | 88 | 84 | 55·4 | 1884-85 | 131 | ... | 57·8 |

* The means of the two years.

This process brings out an apparent periodical variation, at least as distinctly as was shown by Mr. Hill's data; as may be best seen by comparing fig. 2, Plate XIV of Mr. Hill's Memoir with that here given; but the first maximum of the rainfall apparently precedes the first minimum of the sunspots by two years, and the second of the former the second of the latter by something more than a year; while the first minimum of the rainfall follows the first maximum of sunspots by between two and three years, and the second its corresponding maximum by one year. These differences are not, however, such as to justify doubt as to the relationship of the two periodicities, and the variation is of such magnitude, that, repeated twice in succession, and, including Mr. Hill's data, in nearly five cycles, it can scarcely be regarded as a fortuitous coincidence. It may then be concluded, as at least highly probable, that the winter and spring rainfall of Northern India really varies, as was inferred by Mr. Hill; but that it is on and near the Himalaya that the variation is most strongly marked.

To ascertain, approximately, the amount of the variation shown by the registers here considered, I have had the constants of the harmonic formula of two periodical terms computed, on the assumption of an 11 year cycle. They are as follow:—

$U' = 23{\cdot}33$ $\qquad$ $U'' = 9{\cdot}88$

$u' = 21^\circ 47'$ $\qquad$ $u'' = 320\ 14$

and the computed values of the eleven terms of the series. The resulting curve is represented in fig. 10, Plate XIX.

*Table showing the periodical variation of the winter and spring rainfall of the North-West Himalaya, &c., as a percentage of the average, observed and computed.*

| Years. | Mean Rainfall Anomaly. | | Difference r—c. |
|---|---|---|---|
| | Recorded per cent. | Computed per cent. | |
| 1863-64 and 1874-75 . . . . . | —1·7 | +2·3 | —4·0 |
| 1864-65 and 1875-76 . . . . . | +14·3 | +23·3 | —9·0 |
| 1865-66 and 1876-77 . . . . . | +34·3 | +33·2 | +1·1 |
| 1866-67 and 1877-78 . . . . . | +38·3 | +24·1 | +14·2 |
| 1867-68 and 1878-79 . . . . . | —10·2 | +4·1 | —14·3 |
| 1868-69 and 1879-80 . . . . . | —10·2 | —11·6 | +1·4 |
| 1869-70 and 1880-81 . . . . . | —10·2 | —15·6 | +4·9 |
| 1870-71 and 1881-82 . . . . . | —10·7 | —13·6 | +3·4 |
| 1871-72 and 1882-83 . . . . . | —7·7 | —14·5 | +6·8 |
| 1872-73 and 1883-84 . . . . . | —36·7 | —17·7 | —19·0 |
| 1873-74 and 1884-85 . . . . . | +6·3 | —14·0 | +20·3 |

The mean deviation of the percentage of any single year from these computed values is not less than

26 per cent.

or half the amplitude of the mean oscillation; and the relative probability of the oscillation as compared with that of a constant average, 30 to 1.

Doubtless, by computing the formula to a greater number of periodical terms and correcting the deduced values therewith, the probability would be expressed by a higher

number, but the mean deviation is so great (the periodical recurrence of seasons of heavy precipitation being admitted) as to leave it an open question whether there is any graduated variation of the rainfall between such recurrences, or whether they are not rather spasmodic and, like the action of the striking apparatus of a clock, due to some agency which only comes into play at certain epochs, being quiescent in the interim. Yet, the aspect of the curve in fig. 11 on Plate XIX, does suggest a certain graduation between the epochs of maxima and minima, and the approximate, if not absolute, coincidence of the cycle indicated with that of the sunspots is also not without weight.

Considering the above facts, in conjunction with those previously established, *viz.*, that a copious Himalayan snowfall is commonly a forerunner of summer drought, it might be expected that the summer rainfall on the plains would afford evidence of a cyclical variation of opposite phase to the above. If such be the case, it is most likely to be displayed by that portion of India which is most subject to the unseasonable incursion of the dry land winds, *viz.*, the North-West Provinces and Eastern Punjab, Rajputana and Central India, the provinces the mean summer rainfall of which, in the form of a percentage of the average, has been given at the foot of the table on page 235. In the following table I give, for each year, the simple arithmetical mean of the figures of the four provinces as set forth in the above table, and the substituted means derived by the method already described from five consecutive years; also, the sunspot numbers. The rainfall variations, as observed and computed, are represented graphically by the line and dotted curve respectively in fig. 12, Plate XIX—

*Table of annual summer rainfall in North-Western India as a percentage of the average, as recorded and as computed, together with Wolf's sunspot numbers.*

| Years. | Rainfall percentage. | | Sunspot numbers. | Years. | Rainfall percentage. | | Sunspot numbers. |
|---|---|---|---|---|---|---|---|
| | Observed. | Computed. | | | Observed. | Computed. | |
| 1864 | 83 | ... | 45·2 | 1875 | 131 | 113 | 17·1 |
| 1865 | 98 | 97 (?) | 31·4 | 1876 | 102 | 90 | 11·3 |
| 1866 | 104 | 103 | 16·3 | 1877 | 44 | 82 | 12·3 |
| 1867 | 123 | 92 | 7·3 | 1878 | 101 | 88 | 3·4 |
| 1868 | 56 | 83 | 37·3 | 1879 | 110 | 98 | 6·0 |
| 1869 | 96 | 92 | 73·9 | 1880 | 87 | 100 | 31·5 |
| 1870 | 107 | 104 | 139·1 | 1881 | 108 | 94 | 54·2 |
| 1871 | 114 | 113 | 111·2 | 1882 | 104 | 98 | 59·6 |
| 1872 | 122 | 115 | 101·7 | 1883 | 75 | 99 | 63·7 |
| 1873 | 108 | 109 | 66·3 | 1884 | 124 | 105 (?) | 63·4 |
| 1874 | 117 | 118 | 44·6 | 1885 | 107 | ... | 52·2 |

The curve has perhaps less the appearance of a cyclical variation than of one of moderate and irregular oscillation, with abrupt descents in 1868 and 1877, in both cases following immediately on very rainy winters or springs in the Himalaya. It is these that give the curve its strongly marked character; but, apart from these, there does appear to

be a more or less graduated rise to three maxima, one in 1867, one in 1875, and a third in 1884, all of which follow immediately on winters of more or less deficient Himalayan rainfall. Indeed, the impression produced by the aspect of these curves is that the variation of the Himalayan winter rainfall is the more immediate effect of the ulterior cause, whatever that may be; and the opposite variation of the summer rainfall of the plains a secondary phenomenon, dependent possibly on the former.

PERIODICAL RECURRENCE OF DROUGHTS AND FAMINES.—The following tabular list of droughts, and the consequent famines in India, is extracted from the valuable report of the Indian Famine Commissioners (page 21):—

| YEARS. | Area of Drought. | Area of Famine or Scarcity. |
|---|---|---|
| 1769 | Drought in Bengal. | |
| 1770 | . . . . . | Famine in Bengal. |
| 1782 | Drought in Bombay and Madras. | |
| 1783 | Drought in Upper India . . . . . | Famine in Madras and scarcity in Bombay. |
| 1784 | . . . . . | Famine in Upper India from the Karamnasa to the Sutlej. |
| 1791 | Drought in Bombay, Hyderabad, and Madras. | |
| 1792 | . . . . . | Scarcity in north part of Madras. Intense famine in Hyderabad and Southern Mahratta country. Severe famine in Deccan, Guzerat, and Marwar. |
| 1802 | Drought in South Hyderabad and in Deccan. | |
| 1803 | Drought in ceded provinces of North-Western Provinces, and in Central India. | Famine in Deccan and Hyderabad. |
| 1804 | . . . . . | Famine in North-Western Provinces, and scarcity in Central India and Rajputana. |
| 1806 | Drought in central districts of Madras, from Trichinopoly to Nellore. | |
| 1807 | . . . . . | Famine in central districts of Madras. |
| 1812 | Drought in Guzerat, Kutch, and Kathiawar, and to some extent in Madras, also in Rajputana and Central India. | |
| 1813 | . . . . . | Famine in Kutch and Kathiawar; intense in parts of Rajputana. Scarcity in parts of North-Western Provinces and of Madras. |
| 1823 | Drought in Madras. | |
| 1824 | Drought in Bombay . . . . . | Famine in Madras, chiefly in the north. |
| 1825 | . . . . . | Scarcity in Bombay, chiefly in Guzerat and the Northern Deccan. |
| 1832 | Drought in northern districts of Madras, except Ganjam, in the south of Hyderabad, and the southern Mahratta districts of Bombay. | |
| 1833 | Drought in north part of Bombay, in Rajputana, and parts of Punjab, and North-Western Provinces. | Famine in northern districts of Madras, intense in Gantur. Scarcity in Hyderabad and southern Mahratta districts. |
| 1834 | . . . . . | Scarcity in North Deccan and Guzerat, in Rajputana, the Hissar division of Punjab, and the trans-Jumna districts of North-Western Provinces. |
| 1837 | Drought in North-Western Provinces, Eastern States of Rajputana, and south-eastern part of Punjab. | |

| Years. | Area of Drought. | Area of Famine or Scarcity. |
|---|---|---|
| 1838 | Drought in Guzerat, Kutch, and Kathiawar . . | Intense famine in Central Doáb and trans-Jumna districts of North-Western Provinces, and in Delhi and Hissar Divisions of Punjab. |
| 1839 | . . . . . | Scarcity in Guzerat, Kutch, and Kathiawar. |
| 1844 | Scanty rainfall in Deccan. | |
| 1845 | . . . . . | Scarcity in Deccan. |
| 1853 | Drought in ceded districts of Madras, in South Hyderabad, and Sholapur and Kaladgi districts of Bombay. | |
| 1854 | . . . . . | Famine in Bellary. Scarcity in adjoining parts of Madras, Hyderabad, and Bombay. |
| 1860 | Drought in part of North-Western Provinces and Punjab, and neighbouring states of Rajputana. | |
| 1861 | . . . . . | Famine in Upper Doab of North-Western Provinces, in Delhi and Hissar divisions of Punjab, and in adjoining parts of Rajputana. Scarcity in Kutch. |
| 1865 | Drought in northern part of Madras, in South Hyderabad and north part of Mysore; in South Mahratta districts of Bombay, in Orissa and Behar, and all Western Bengal. | |
| 1866 | . . . . . | Famine in Ganjam and Bellary districts of Madras, in Orissa (intense) and in Behar. Scarcity in all adjacent parts of Madras, Mysore, Hyderabad, and Bombay, and in Central and Western Bengal. |
| 1868 | Drought in Rajputana, trans-Jumna districts of North-Western Provinces, north and south-east districts of Central Provinces, and in Punjab from Jumna to Indus. | |
| 1869 | . . . . . | Famine in Western Rajputana (intense), in trans-Jumna districts of Allahabad and Delhi, and Hissar Divisions of Punjab. Scarcity in adjacent parts of North-Western Provinces and Punjab, in Guzerat, Kutch, and North Deccan, and in the north and south-east districts of Central Provinces. |
| 1873 | Drought in North Behar and part of North-Western Provinces and Oudh. | |
| 1874 | . . . . . | Famine in Behar and scarcity in the strip of North-Western Provinces and Oudh adjacent. |
| 1876 | Drought in all Madras and Deccan, Mysore and South part of Hyderabad. | |
| 1877 | Drought in Central Provinces, North-Western Provinces and Punjab. | Famine in Madras, Mysore, Bombay, and Hyderabad. |
| 1878 | . . . . . | Famine in North-Western Provinces and Kashmir. Scarcity in Punjab. |

If, from the above list, we take out the droughts that have occurred in some part or other of the Peninsula, it appears that they have recurred with remarkable regularity at intervals varying from 9 to 12 years, thus:—

| Year. | 1782 | 1791 | 1802 | 1806 | 1812 | 1823 | 1832 | 1844 | 1853 | 1865 | 1876 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Interval . | 9 years. | 11 years. | 4 years. | 6 years. | 11 years. | 9 years. | 12 years. | 9 years. | 12 years. | 11 years. | |

Omitting that of 1806, which divided the more ordinary interval into two parts, the mean interval is 10·36 years.

Now the years of minimum sunspots according to Wolf's table were—

1784. 1798. 1810. 1823. 1833. 1843. 1856. 1867. 1878.

With the exception of the droughts of 1791, 1802, and 1806, which divided into four parts two sunspot cycles of unusual length, every one of these years of deficient rainfall either coincided with a year of minimum sunspots or was within three years of it.

| | |
|---|---|
| One occurred 2 years later. | One occurred 1 year earlier. |
| One „ 1 year „ | Three „ 2 years „ |
| One „ coincidently. | One „ 3 „ „ |

The mean of all these would bring the average interval down to one year, by which, as a rule, the drought precedes the sun-spot minimum. This anticipation of the sunspot epoch, which, it will be observed, is also shown by the winters of excessive Himalayan snowfall, would alone suffice to throw doubt on any direct dependence of the terrestrial phenomenon on this particular manifestation of solar activity; and this doubt becomes strengthened, and indeed confirmed, when we take cognizance of the great deviation from even approximate coincidence of the droughts of 1791, 1802, and 1806 with the sunspot minima of 1798 and 1810.

The droughts included in the above list have, in different cases, affected very different parts of the Peninsula; those most subject to famine, being the plateau around Bellary and the adjoining region of normally low rainfall, which extends thence through Mysore, the Deccan, east of the Ghâts, and the western half of Hyderabad. The Carnatic has also been frequently involved, and, more especially, the extreme northern and most southern districts.

Of the droughts of Northern India, no less than five, during the last century, have occurred in years immediately following those of drought in the Peninsula. Thus, we have in the above list—

1. 1782. Drought in Bombay and Madras.
   1783. Drought in Upper India.
2. 1802. Drought in South Hyderabad and Deccan.
   1803. Drought in North-West Provinces and Central India.
3. 1823. Drought in Madras.
   1824. Drought in Bombay, chiefly Guzerat and North Deccan.
4. 1832. Drought in northern districts of Madras, &c.
   1833. Drought in north part of Bombay, Rajputana, Punjab, and North-West Provinces.
5. 1876. Drought in all parts of Madras and Deccan, &c.
   1877. Drought in North-West Provinces, Central Provinces, and Punjab.

These cases seem too numerous to be merely fortuitous, and it is remarkable that, in every one, the drought occurred in the Peninsula in the first year, and afterwards in Northern India. In 1824 and 1833 the North Deccan also was involved in the second year's drought. It may be that, as in the last pair of years, there has been a heavy snowfall in two winters in succession, but (even if this be a fact) its explanation is not obvious, nor why the drought should affect the southern provinces in the first year, and the northern in the second.

The droughts of 1812 and 1865 affected both Northern and Southern India simultaneously.

Then remain the following droughts which have affected Northern India only:—

1837. Drought in North-West Provinces, Eastern States of Rajputana, and South-East Punjab.
1838. Drought in Guzerat, Kutch, and Kathiawar.
1860. Drought in part of North-West Provinces, Punjab, and Rajputana.
1868. Drought in Rajputana, trans-Jumna districts, North-West Provinces, Central Provinces, and the Punjab.
1873. Drought in North Behar.

Now, it is curious that three of these years, *viz.* 1837, 1838, and 1860, were either years of a sunspot maximum or immediately following one. Of the snowfall of the earlier months of these years I know nothing; but, in the case of 1860, I have already noticed that it was the only year, prior to 1877, in which the atmospheric pressure was excessive at all the Russian stations compared in Northern Asia and Europe.[1] The drought of 1868 followed on a year of excessive snowfall, as had the preceding drought of 1865; and, in 1873, the drought affected only the latter part of the monsoon. The rains were, as usual, in June, July, and August, and it was only their premature cessation, in September, that caused some scarcity in Northern Bengal. It is included in the list of famines in the Famine Commissioners' report, but it is generally understood that it was a catastrophe of a very different order from most of those with which it is tabulated.

(*a*) The conclusion from this discussion is that, as an empirical fact, droughts of various degrees of severity are liable to recur, in some part or another of Southern India, at intervals of from 9 to 12 years, rarely in the intervening periods. The region of minimum normal rainfall around Bellary, including Northern Mysore, the South Deccan, and South-Western Hyderabad, is that most likely to suffer severely; but all parts of the Peninsula, excepting, indeed, the country below the Western Ghâts and the Central Provinces, are more or less exposed to famine.

(*b*) A severe drought in the Peninsula is followed in the next year by one in Northern India in about one instance out of two.

(*c*) These droughts have occurred, on an average, about a year before the sunspot minimum, but there is no clear and direct, or indeed any, dependence of the one class of phenomena on the other.

(*d*) Besides these, droughts occur at other times in Northern India, sometimes in years of maximum sunspots. As far as the data of recent years admit of a definite conclusion, these (as indeed do those of the former class) follow on heavy Himalayan snowfall either in the earlier months of the year or, it may be, in the early part of the monsoon.

[1] At the epochs of sunspot maximum the winter atmospheric pressure is always high in Western Siberia. In 1860 it seems to have been remarkably high.

## NOTE TO PAGE 244.

The substance of this discussion of the Carnatic registers having been published in a short paper in "*Nature*" (Vol. 36, No. 923, p. 227), it was pointed out by General Strachey (idem, No. 925, p. 267), that the method by which I endeavoured to estimate the probability that the 11 years' variation is the result of a periodical cause, is logically invalid. This I frankly admit; and the same remark will apply to the similar estimate of the less distinct cyclical variation of the cold-weather rainfall of the North-West Himalaya. The evidence itself, however, remains unaffected by this failure in the mode of estimating its value; and in the case of the Carnatic rainfall the reasons for regarding the 11-year fluctuation as a probably recurrent, and not fortuitous phenomenon, apart from any reference to its cause, may be put in a less objectionable, if less definite, form than that erroneously based on the method of probabilities.

In the first place, each series of 11 years, taken separately, exhibits a dominant fluctuation of that period, and these fluctuations show much accordance both in their ranges and in the epochs of their critical phases. Simple inspection of the tabulated data is sufficient to assure one, that there is no regular fluctuation of anything like the same magnitude, differing much from the 11-year period.

In the second place, the range of the fluctuation, as educed by the harmonic formula (restricted to the two first periodical terms), is four times as great as the mean deviation of the recorded amounts from the corresponding computed values; as has already been pointed out in the text. In this computation, the mean deviation of the whole series is compared with the range of the mean fluctuation computed from the whole series of 22 years, and on the assumption that it is in some way dependent on the solar variation, indicated by sun-spots, prominencies, &c., it is not to be expected that, any more than the latter, it should be identical in two different cycles. But the test equally holds good when a similar comparison is made for each series taken separately; indeed, as might be expected, the ratio is still smaller, less than one-fifth in the first cycle, and less than one-fourth in the second.

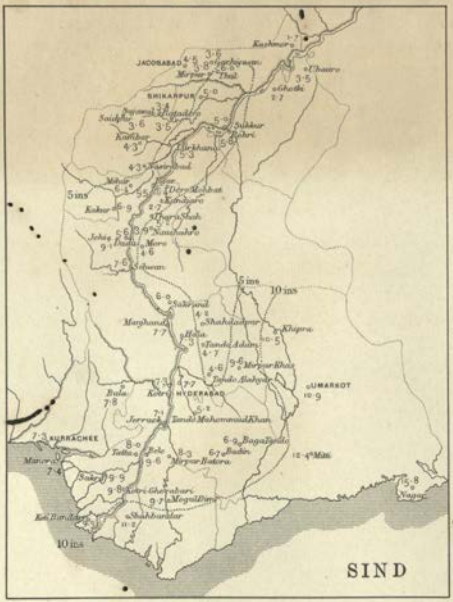
When we have a few years' more registers of the rainfall of the Dutch Indian possessions from the network of stations established by the late Dr. Bergsma, it will be of much interest to ascertain if any similar fluctuation is shown by them also.

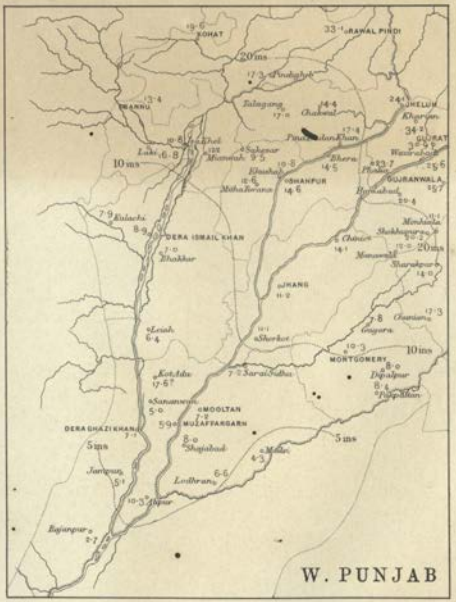
Government of India Central Printing Office.—No. 912 Meteor.—12-10-87.—600.

LITHOGRAPHED FROM AN ORIGINAL SUPPLIED FROM THE METEOROLOGICAL REPORTER TO THE GOVT. OF INDIA.
at the Survey of India Offices, Calcutta, May 1895.

CHARTS OF FOUR SOUTH-WEST MONSOON STORMS PASSING ACROSS INDIA.

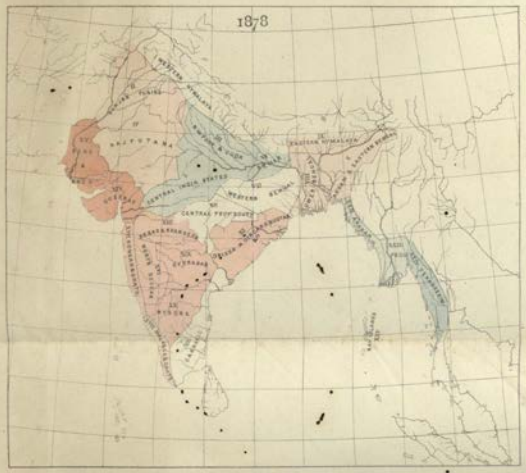
Lithographed at the Survey of India Offices, Calcutta, July 1886.



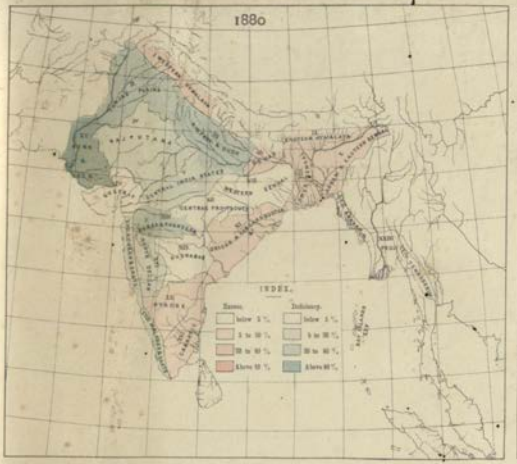



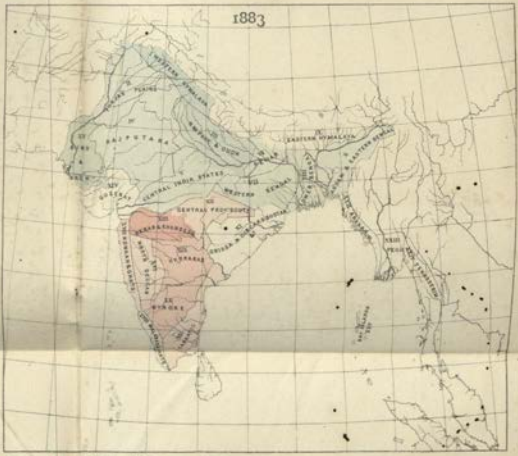

RAINFALL CHARTS OF SIND AND WESTERN PUNJAB.

Lithographed at the Survey of India Offices, Calcutta, March 1897.



COMPARATIVE RAINFALL CHARTS OF THE YEARS 1876 TO 1879.





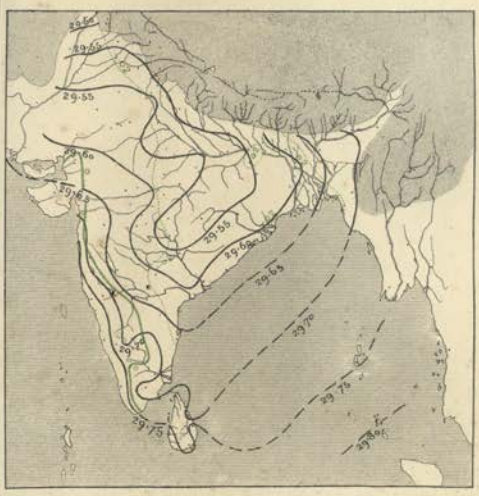

COMPARATIVE RAINFALL CHARTS OF THE YEARS 1880 TO 1883.

Lithographed at the Survey of India Offices, Calcutta, June 1887.

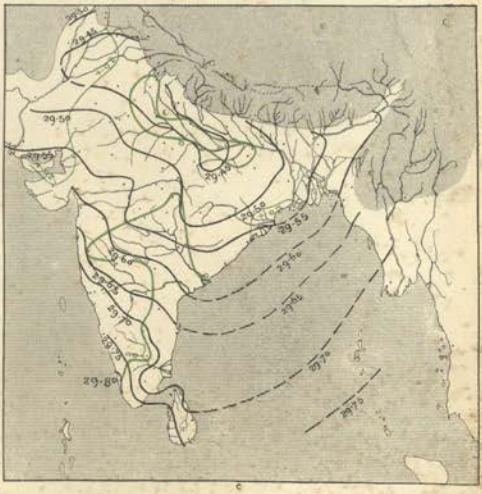
MARCH 1876.

APRIL 1876.

MAY 1876.



JUNE 1876.



## CHARTS OF MONTHLY MEAN PRESSURE AND ANOMALIES.

*Positive baric isabnormals* _____

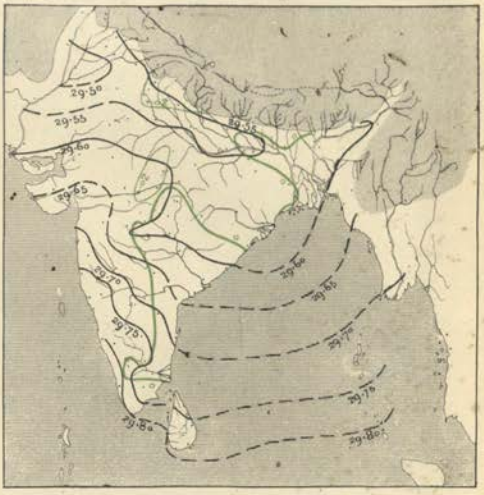
*Neutral* „ „ _____

*Negative* „ „ .....

Lithographed at the Survey of India Office, Calcutta, June 1887.

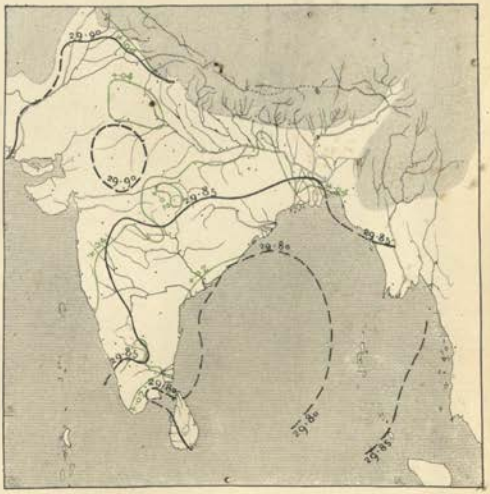
JULY 1876.

AUGUST 1876.




SEPTEMBER 1876.

OCTOBER 1876.




## CHARTS OF MONTHLY MEAN PRESSURE AND ANOMALIES.

*Positive baric isabnormals* ————

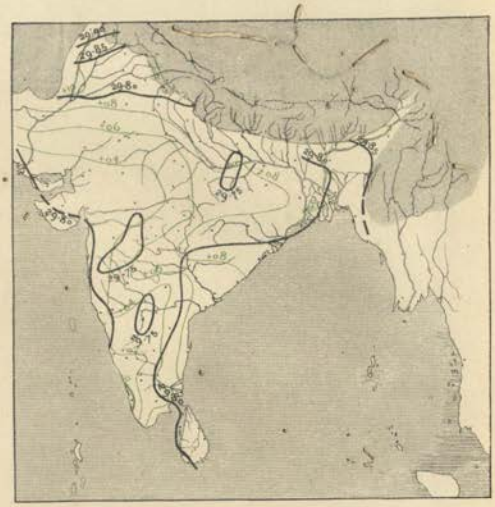
*Neutral* „ „ ————

*Negative* „ „ ·····

Lithographed at the Survey of India Offices, Calcutta, June 1897.

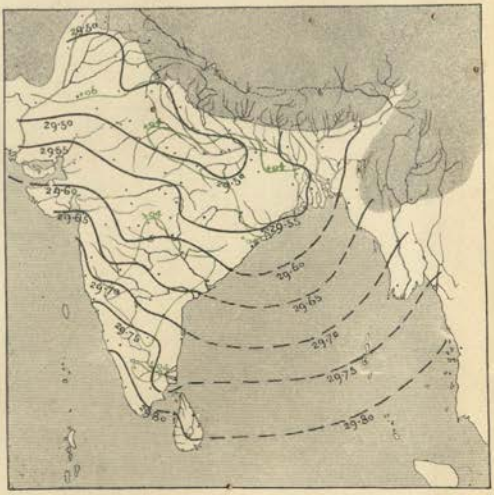
MARCH 1877.

APRIL 1877.




MAY 1877.

JUNE 1877.




## CHARTS OF MONTHLY MEAN PRESSURE AND ANOMALIES.

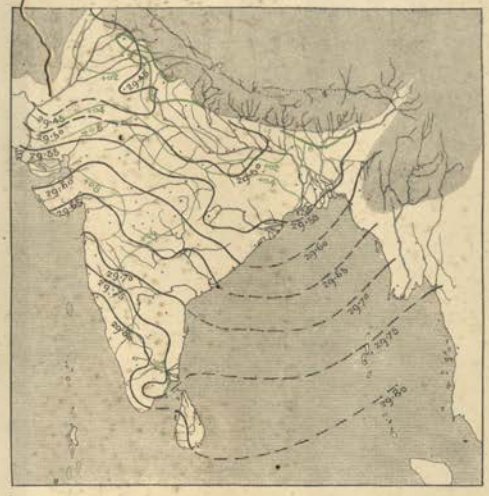
*Positive baric isabnormals* ————

*Neutral* ,, ,, ————

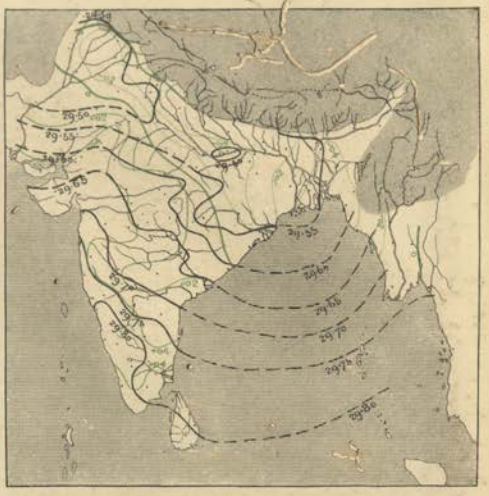
*Negative* ,, ,, ·····

Lithographed at the Survey of India Office, Calcutta, June 1897.

JULY 1877.



AUGUST 1877.



SEPTEMBER 1877.

OCTOBER 1877.

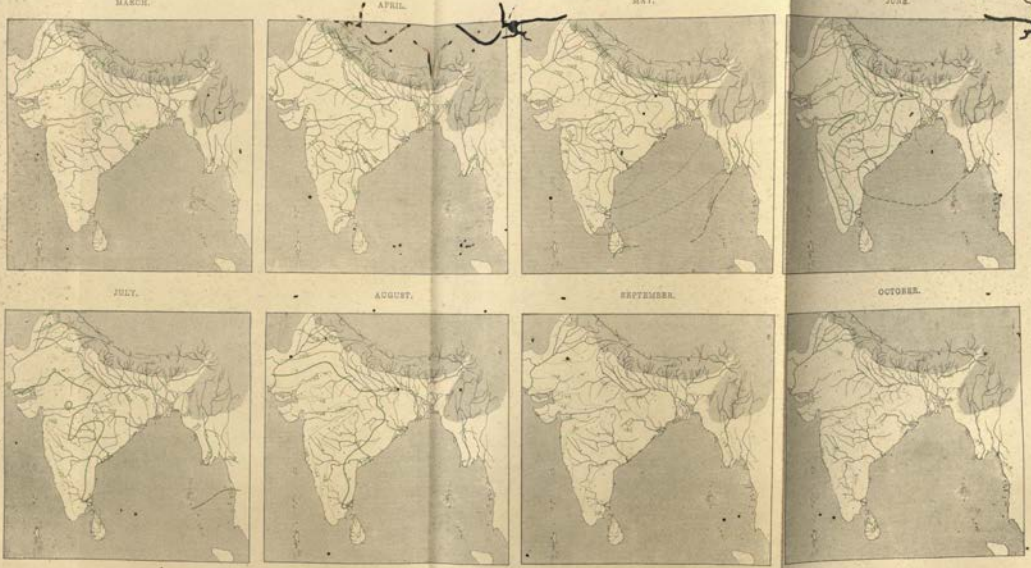
## CHARTS OF MONTHLY MEAN PRESSURE AND ANOMALIES.

*Positive baric isabnormals* ———

*Neutral* „ „ ———

*Negative* „ „ .....

Lithographed at the Survey of India Offices, Calcutta, June 1897.

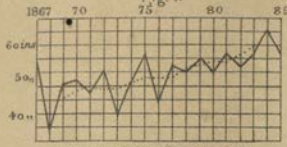



CHARTS OF MEAN BAROMETRIC ANOMALIES—1878.

*Positive baric isobnormals* ———
*Neutral* " " ———
*Negative* " " ———

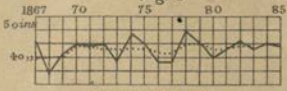
Lithographed at the Survey of India Offices, Calcutta, June 1880.

Fig. 1.



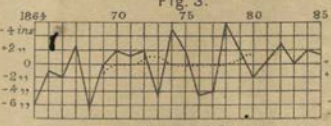

Annual Rainfall of Central Provinces.

Fig. 2.



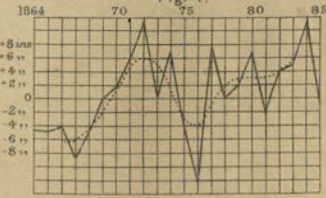

Annual Rainfall of India.

Fig. 3.




Annual Rainfall, India.

Fig. 4.



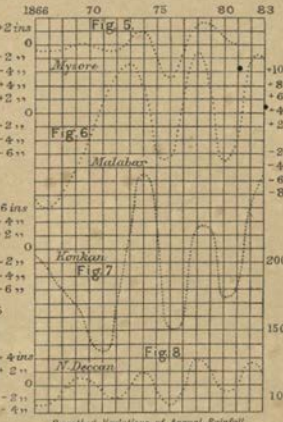

Annual Rainfall, Carnatic.

Fig. 5.

Fig. 6.

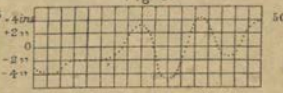
Fig. 7.

Fig. 8.




Smoothed Variations of Annual Rainfall.

Fig. 9.

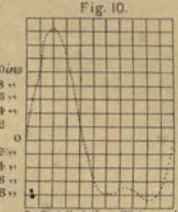



Smoothed Variations of Annual Rainfall, Western Provinces & Peninsula.

Recorded

Smoothed

Fig. 10.

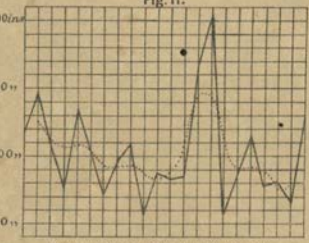


Cyclical Variation, Winter and Spring Rainfall, N. W. Himalaya.

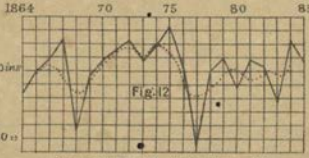
Fig. 13.

Cyclical Variation of Rainfall in Carnatic.

Fig. 11.




Winter and Spring Rainfall, N. W. Himalaya.




Summer Rainfall of N. Western places, India

Lithographed at the Survey of India Offices, Calcutta, June 1897.

## SUMMARY OF PART II.

The first object of enquiry, in the second part of this Memoir, is the comparative variability of the rainfall in different parts of India. The data, first selected for this purpose, are the registers of twenty-nine stations variously situated; the registers being those that extend over the longest periods, and represent both mean and extreme conditions of rainfall. The result is, that, while, at certain stations, the rainfall of any single year does not vary, on an average, more than 10 per cent. from the general average of all the years, at other stations the mean annual deviation is as much as 29 or 30 per cent.; and in one case (Kurrachee) not less than 60 per cent.

As a general rule, stations with the highest normal rainfall are those at which its variability, thus estimated, is least; and those with the smallest averages are also those at which it is most variable and uncertain. But this rule is subject to many exceptions in the intermediate gradations; and the list includes two stations with average amounts differing only by one inch, one of which has a mean variability of only 10 per cent., the other of not less than 29 per cent. from the local average; the first being Almora in the Himalayan district of Kumaon, the second Trichinopoly in Southern India.

Further enquiry has shown that stations with a regular and moderate rainfall, while differing in many geographical features, agree in this, that they are rarely if ever exposed to parching land winds, being either screened from such winds by protecting hill-ranges, or surrounded by an extensive tract, from which local evaporation is always more or less active. On the other hand, stations with a precarious and variable rainfall are those situated on dry plains or table-lands, which yield but little local evaporation, and where the winds from opposite quarters are strongly contrasted in point of dryness and dampness.

Incidentally it has been pointed out that, at stations of the latter class, individual falls of rain are on an average not less heavy than at those at which rain is more frequent; and, further, that the anomalous features of any given season are, in general, very persistent. Hence the greater proportional variability of the rainfall, where the average is low, than where the atmosphere is generally damp and rain frequent.

The table which illustrates the variability of the rainfall also affords a criterion of the accuracy of the average values adopted in Part I of this Memoir. In the case of registers which extend over about thirty years, the probable error of these adopted values varies between $\frac{3}{4}$ inch as a minimum, and 6 inches as a maximum, and is from 2 to 3 per cent. as a general rule. At stations with a high average fall, while in absolute measure it approaches this higher limit, it does not much exceed 2 per cent. of the average. Only at Kurrachee, (and doubtless other stations in the arid Indus region,) does it much exceed 5 per cent. In the case of stations which afford registers for 10 or 12 years only, the probable error is about double these amounts.

When the mean rainfall of the several rainfall provinces is compared in like manner it is found that they are characterized by similar differences, but that the mean range of variation of any province is less than that of the individual stations within it. Thus, the mean deviation of the rainfall of Shahpur and Delhi, in any one year, from their respective

averages, is 30 and 24 per cent. respectively, whereas that of the Punjab province, as a whole, is only 13 per cent.; that of Jubbulpore and Nagpur, in the Central Provinces, is 21 and 20 per cent., but that of the Central Provinces, as a whole, only 10 per cent.; that of Poona and Sholapur in the Deccan, each 20 per cent., but that of the whole province only 15 per cent., and so of the rest. Hence it appears that the greater irregularities of the rainfall of any single station are, to a certain extent, compensated by irregularities of the opposite character at other stations, within the limited range of the rainfall province in which it is situated. And it has been further shown (p. 148) that, *ceteris paribus*, the larger the area, the smaller is the range of variability, and the smaller therefore the probable error of the adopted average.

The province in which the annual variations, as compared with the general average, are greatest, is Sind and Cutch; as might indeed have been inferred from the instance of Kurrachee, already cited. That in which they are least is Assam, together with Cachar and Eastern Bengal; and this province, although not that with the highest average rainfall (on the mean of the whole area), is that in which the atmosphere is most uniformly damp, and in which the greater part of the year is more or less rainy. It is, too, the province in which local evaporation is most active in maintaining the dampness of the atmosphere; while the mountain barriers on the north and east completely seclude it from continental winds from those quarters; and even the west winds, the dry winds of the Gangetic plain, have already lost much of their dryness in passing over Bengal. In the valleys of Assam and Cachar, the air movement is generally but small.

Next to Sind and Cutch, (with which may probably be included the almost unrepresented desert tract of Western Rajputana,) the province with the most variable and irregular rainfall is the North-Western Provinces and Oudh; and this, notwithstanding that its annual average considerably exceeds that of the Punjab, Rajputana, and the greater part of the Indian peninsula. It appears, from the subsequent historical retrospect of the rainfall variations of the nine years 1875-1883, that this exceptional irregularity is due to the fact that, in some years, during the whole or the greater part of the summer monsoon, dry land winds from the west and north-west replace and exclude the normal easterly monsoon current; and, so long as they prevail, rain is almost completely suspended. On the other hand, in certain years, *e.g.*, 1879, the great northern plain is repeatedly, and for many days in succession, the seat of those slight barometric depressions which mark the goal and place of chief convective ascent of the two branches of the monsoon; and it is around these that the greatest precipitation is determined. The province of Behar shares these vicissitudes, but in a mitigated degree, its position being intermediate between the North-Western Provinces and Lower Bengal, which latter ranks among the less variable provinces. Eastern Rajputana and the Central India States are also subject to like alternations, and usually suffer from any drought that affects the North-Western Provinces, being swept by the same westerly winds. But here again, on the plateau south of the Ganges, the contrasts are less marked than on the plain to the north of the river, and especially in the Gangetic *Doab*.

The province of Guzerat, with an average rainfall slightly less than that of the North-Western Provinces, is subject to about the same average variation as the Central India States to the east of it, but with extreme variations surpassing those of any of the provinces except Sind, &c. Thus, the rainfall of the year 1877 was deficient by one-half

the average, while that of the following year was not less than 61 per cent. in excess. Khandesh and Berar would appear to rank next to the North-Western Provinces in point of mean variability, and to be not far short of Guzerat in that of extreme range; and to the south of this, the provinces of Hyderabad, the Deccan, and Mysore (together occupying all the western and southern portions of the peninsular plateau), and also the Carnatic, are similar to Guzerat in the variableness of their rainfall. All but the last-mentioned of these provinces receive their rain, either from the western branch of the summer monsoon, or from the eastern branch towards the close of the season, when it is retreating from Northern India, and recurving over the peninsula, preparatory to the concentration of its rainfall on the Carnatic and Ceylon.

During periods of drought in North-Western India, when westerly or north-westerly land winds prevail to the exclusion of the rain-bearing current from Rajputana, Central India, and Guzerat, the north-west of the peninsula is, as a rule, affected in like manner, so long as the drought is at its height; and occasionally a temporary suspension of the rainfall extends even further south to Mysore and the Carnatic. But more frequently, as in 1880 and 1883, the rainfall, on such occasions, is heavier than usual in Southern India.

Taken as a whole, the total annual rainfall of the Punjab appears to be subject to smaller vicissitudes than that of any other province of North-Western India. This exceptional character is due to the fact that, while the normal summer rainfall is less than that of the North-Western Provinces, Eastern Rajputana, &c., the winter and spring rainfall is, both absolutely and, *a fortiori*, in proportion to the summer rains, much more important. And, as has been shown in the latter part of this Memoir, there appears to be a certain opposition in the variations of these two elements. The Punjab usually shares any drought that may affect the North-Western Provinces during the summer monsoon, but the deficiency thus arising is frequently compensated by the more copious rainfall of the earlier part of the year; and, on the other hand, a very dry winter and spring are frequently followed by a summer rainfall above the average.

Those parts of India, that have suffered from severe famine within the last century, are all included within the region, the average annual rainfall of which does not exceed 50 inches, and the mean annual deviation from that average amounts to 12 per cent. and upwards. Those most liable to disastrous famines are such as have an annual average between 28[1] and 40 inches, and a mean annual deviation therefrom of 15 to 23 per cent. In this region, which comprises the greater part of the Gangetic plain, and also the Deccan and Mysore plateau and the Carnatic in the Peninsula, the average rainfall and fertility of the land are such as to foster a dense population, entirely dependent on agriculture; and when, therefore, a long interval of prosperity is followed by a serious failure of the crops, the suffering is the more severe.

From this mainly statistical discussion, the next step is to the consideration of the geographical and other physical conditions that are favourable to rainfall or the reverse, including those on which its steadiness chiefly depends. These latter have been found to consist in the constancy of a humid atmosphere, whether owing to the steady prevalence of a vapour-bearing current, or to that of local evaporation. It has been pointed out, however, that this condition alone does not ensure rainfall. It is also necessary for the

[1] At page 130, the lower limit is given as 30 inches, but this would not include the Deccan and Mysore plateau, which has suffered as often and as severely as the Carnatic.

condensation of the vapour as rain, that the atmosphere should be cooled locally; and this practically depends on its having an ascensional movement; other causes of cooling being unimportant. Instances are given, and they might be indefinitely multiplied, of strong horizontal winds, highly charged with vapour, which nevertheless yield no local rainfall, although they carry abundant rain to some more or less distant region, where their horizontal motion is changed to one more or less vertical, and dynamic cooling consequently ensues. Any casual circumstance or permanent condition, therefore, that promotes ascensional movement, favours the precipitation of rain; and such are found in the forced ascent impressed on a horizontal current by the slope of the ground, in the eddies set up by the increased friction of a land surface, in the upward convection of valleys and mountain slopes during the diurnal rise of temperature, and, most important of all, in the ascending currents around temporary, or quasi-persistent, barometric depressions.

In connection with this last condition it has been observed that the seat of minimum pressure is not the seat of maximum rainfall; nor indeed, in the case of the great summer depression of Upper Sind and the Lower Punjab, of any precipitation whatever. It is around the borders of this depression, (or rather of its eastern extension,) and at a considerable distance from it, that the ascensional movement is most frequent and active, as is indicated by the zone of maximum rainfall on the chart of India. From the almost rainless region of Sind and Western Rajputana, an axis of relatively low rainfall, coinciding with that of the barometric trough of Northern India, extends eastwards down the Gangetic *Doab*,[1] and is traceable still further east across Southern Behar to the borders of Lower Bengal.[2] South and north of this are two zones of maximum precipitation; the one coinciding with the Satpura range and its offshoots, the other with the Himalayan *terai*[3] and the outermost mountain slopes. In the southern of these zones, the rainfall is more distributed and locally less concentrated and heavy than in the northern, where its amount is greatly enhanced by the presence of the hills; but it is less subject to irregular vicissitudes than in any other part of India, save only Lower Bengal and Assam, which may be regarded as the eastern prolongation of this zone.

Of the influence of local evaporation in enhancing rainfall, one or two instances are given; especially that of Yarkand, described in a former Memoir,[4] and that of the irrigated tract bordering the Indus in Sind and the Lower Punjab. In Bengal and the Assam valley a similar condition is operative, and doubtless contributes largely to the copiousness and regularity of the rainfall of those provinces; but it co-operates with other causes having a similar effect, and it is impracticable to assign to each its proportionate share in the general result.

Nearly connected with the subject of local evaporation, and indeed, in the main, a particular case of it, is the influence exerted by forests on rainfall. Of this influence a recent writer, M. Woeikoff, considers that India offers striking examples, especially in the contrast afforded by such provinces as Assam on the one hand, and the Gangetic plain on the other. Of the reality of this contrast there can be no question; but it has been shown in the preceding pages that, at the utmost, only a part of the contrasted effects can be

[1] The tongue of land between two rivers above their junction, etymologically equivalent to Mesopotamia.
[2] See footnote, page 133.
[3] The swampy zone at the foot of the mountains.
[4] Vol. I, pp. 59-61.

attributed to the presence or absence of forest, and that exposure to or protection from dry winds, the mobility or stagnation of the atmosphere, the contrasted conditions of hills and plains, and local evaporation from other sources than forests, are conditions which contribute in a very important degree to the observed results. As already remarked, it is impossible to disentangle the effects of these complex causes, and to assign to each its proportionate value; and therefore, in discussing the question of the influence of forests, I have sought for less striking examples, but such as more nearly fulfil the rigorous conditions of a logical method.

Three such are afforded by the data available to me, differing in kind as well as in locality. We have first the case of the Central Provinces south of the Nerbudda and Sone valleys, an area of 61,000 square miles, about five-sixths of which are in the condition of forest. Up to 1875, this forest was subject to systematic waste, by the destructive method of *dahya* cultivation practised by the jungle tribes; and not less by jungle fires, set on foot by villagers for the purpose of procuring a fresh growth of young grass as pasturage. About 1875, the suppression of *dahya* cultivation was taken systematically in hand, and, at the same time, protection from annual fires has been more and more strenuously enforced by the action of the Forest Department. Now it is shown in the first place that, whereas in the Central Provinces north of the Satpuras, which have been but little affected by these measures, the mean rainfall of the last ten years has been rather less than that of the nine or ten years ending with 1875, the southern tract, in which vigorous forest growth has been chiefly fostered, shows an average increase of more than 14 per cent., and moreover that this increase has been, on the whole, steadily progressive since the assigned date of the protective measures; so that, in the most recent years, it amounts to about 20 per cent. It is hardly to be expected, indeed, that this high proportion will be maintained; in other words, it seems probable that a part of this large increase is due to other, and, as we must regard them, fortuitous circumstances. But it is by no means improbable that the effect is partly to be ascribed to the protection of the forests.

In the next place, we have the evidence of two pairs of observatories, established on Ebermeyer's plan, near the margin of a well grown and sharply demarcated forest in the Sivaliks near Dehra Dun; one of each pair being within, the other without, the forest. One pair furnishes a register for one and a half years, the other for ten months only. Owing to the near proximity of the rain-gauges in each pair, (750 yards and 920 yards respectively apart), the difference shown is very small; but in both cases, and in both years, indeed in most months, the forest precipitation is slightly the higher.

The third case is afforded by a forest, nearly 32 square miles in extent, established twenty years ago, by means of irrigation, in one of the driest parts of the Punjab. A register of the rainfall, at a station half a mile within the forest boundary, during the last seventeen years, is compared with those of two stations distant respectively 4 and 13 miles from the forest boundaries in opposite directions, and in the immediate proximity of irrigated arable land. Making allowance for the graduated increase of the rainfall between the two outside stations, and computing therefrom a normal value for the forest station between them, it is found that the recorded rainfall of the forest is about 6 per cent. higher than that value, which excess may, in this case, be attributed with much probability to the forest.

The evidence of these several cases is therefore uniformly in favour of the view that the presence of vigorous, dense forest enhances the rainfall; but it must be admitted

that in no case is it absolutely conclusive; and perhaps it may be long ere it will be possible to obtain such evidence as will fulfil the conditions of a rigorous logical method. Nevertheless, by the gradual accumulation of carefully selected instances, and the extension of the registration over lengthened periods, it is not improbable that a conclusion, practically convincing, may be eventually arrived at.

From this enquiry into the local variability of the rainfall, and the influence of geographical and other physical conditions in determining that variability, I have passed to the consideration of the questions, whether the vicissitudes of past years afford any indication of laws of coincidence or sequence; whether certain portions of the country are, as a rule, subject simultaneously to similar or alternative conditions; whether any physical connection can be traced between abnormal meteorological conditions in certain portions of the area or in neighbouring areas, and the excess or deficiency of the rainfall there or elsewhere; and also, whether there are any valid grounds for the belief, that the rainfall of India as a whole, or of any part or parts of it, is subject to the operation of a periodical law. The discussion of these questions occupies all the remaining portion of the Memoir.

As a preliminary to this enquiry, I have thought it necessary further to test the validity of the data employed, with a view to ascertaining how far they are really representative of the vicissitudes of the extensive area over which the stations are distributed. The register of each station is taken as representing the rainfall of an area varying from 1,800 to 4,000 square miles, in general, and indeed, in a few cases, even more than this; and it can therefore by no means be assumed *a priori* that a number of such stations, even though evenly distributed, fairly represent the vicissitudes of the rainfall of areas varying from 16,000 to 120,000 miles. A comparison of the rainfall of fourteen provinces as deduced from these data, in five consecutive years, with that computed from registers, in some cases, six or seven times as numerous, shows however that the discrepancies are comparatively small, averaging only about 4 per cent. of the total annual rainfall; not very much greater than the probable error of the adopted averages. It is therefore concluded that the general indications of the registers may be relied on, for the purpose of discussion.

On tabulating the variations of the several rainfall provinces for twenty years, it is found that in no single year was the rainfall excessive or deficient simultaneously in all parts of India. There have been years in which a deficiency or excess was very general, but there have always been some exceptions to the prevailing rule. A detailed examination of the data shows that, on an average, two-thirds of the area varies in one direction, and one-third in the opposite manner. And it is further found that, also on an average, the greater the area affected, in any single year, by either excessive or deficient rainfall, the greater, in about the same proportion, is the mean excess or deficiency of that area. On the mean of the whole area of India, (exclusive of the unrepresented tract of 215,000 square miles, and also of the Himalaya, and the provinces heretofore known as British Burma,) the greatest variations, in any of the twenty years, have been about 15 per cent. in excess (1878) and 16 per cent. in defect (1868), or 6·3 and 6·6 inches respectively, on the general adopted average of 42 inches. Apart from possible errors of method, the probable error of this average is about half an inch, as deduced from the registers of twenty years. The mean annual deviation from the average, during these years, has been 2·8 inches, or

somewhat less than 7 per cent., which is smaller than that of any individual rainfall province, with the sole exception of Assam and Eastern Bengal.

Hence it appears that the vicissitudes of the rainfall diminish (proportionally to the average) the larger the area considered. It has been shown, at the outset, that the variations of any entire province are considerably less than those of the individual stations within it, and it now further appears that those of India, as a whole, are less than those of any one of its included provinces, with but a single exception. Such a result might perhaps have been anticipated; but it becomes a question of some interest how far, on a further extension of the area, they would be found still further reduced. Our registers necessarily tell us only of the rainfall on the land, and it is quite possible, indeed, there is some reason for regarding it as probable, that a further balance is established between the rainfall on the sea area and that of the land, so that, in periods of drought on the land, there is a greater precipitation than usual over some portion of the ocean. Such appears to be the case when cyclones are in course of formation over the Bay. The vapour that might otherwise be carried to the continent and there precipitated, is then condensed in the torrential rain, which, on ample evidence, is the invariable condition of the genesis of a cyclone. And such appears to have been the case in the autumn of 1876, the season of the great drought in the peninsula, including the Carnatic. But it must be added that, in seasons of drought in Western India, when the summer monsoon fails to bring the usual rainfall to the Konkan and northern provinces of the peninsula, fine rainless weather prevails also over the northern portion of the Arabian Sea; a condition of which the probable explanation has been given at page 229 of this Memoir.

In respect of the land, the further question presents itself, whether the compensatory distribution of the rainfall, to which the foregoing facts testify, exhibits any recurrent features, such that certain portions of the country usually share the same vicissitudes or the opposite. Due allowance having been made for the fact, already noticed, that, as a rule, two-thirds of India usually show similar conditions and only one-third varies in the opposite manner, it is found, on an exhaustive comparison of the variations of all parts of India, that, taking the rainfall provinces in pairs, certain recurrent coincidences and divergences present themselves, not only between contiguous provinces in the former case and between distant provinces in the latter, but also between such as have the opposite relations.

One of the best defined groups of contiguous provinces, which agree in their vicissitudes, *viz.*, Berar, Khandesh, the Central Provinces south of the Satpuras, and Orissa and the Northern Circars, also afford somewhat striking instances of both these latter relations. Variations similar to those of Orissa are exhibited, in the proportion of more than 6 years to 1, by the comparatively distant province of Assam and Eastern Bengal, and to those of the more remote provinces of the same group in the proportion of more than 3 years to 1. But Lower Bengal, which lies between, and is contiguous to, both (or, at all events, the greater portion of it), varies in the proportion of more than 3 to 1 in the opposite direction; and the same province exhibits a still stronger opposition to the Konkan and Hyderabad, which, together with Berar, Khandesh, and the Northern Deccan, constitute another very well defined group with coincident variations. Mysore, Bellary and the Carnatic, Arakan and Pegu, and the North-Western Provinces and Behar form other well marked groups of the same character. On the other hand, Arakan and Sind,

Western Bengal and Hyderabad and Pegu, Lower Bengal and the Carnatic, and the Central Himalaya with the Punjab and Rajputana, show a more or less strong tendency to opposite or alternative variations.

Of some of the more conspicuous of these cases, the explanation is sufficiently obvious; that of others can be sought only in a more detailed study of the distribution of the rainfall in different years, with due regard to the other features of the meteorology. Thus, the first named group of concordant provinces range across the peninsula, immediately to the south of the barometric trough which is the debatable ground of the two branches of the monsoon. They receive the greater part of their rain from the western branch, and their heaviest rainfall occurs when the cyclones, formed in the north of the Bay, take a westerly course along the southern margin of this trough, producing floods in the Mahânadi, Tapti, and Nerbudda. On these occasions, the greater part of Bengal gets but little rain. The concordant character of the Assam rainfall is, however, more difficult to explain, unless it be that it lies too far east to be within the northerly indraught of the incipient vortices, while it benefits by receiving a portion of the strong southerly current during their formation over the Bay.

The concordance of Hyderabad with the North Deccan, the Konkan, Berar and Khandesh, all contiguous provinces, occupying the whole of the north-west of the peninsula, is evidently due, in a great measure, to their being all within the domain of the land winds, which are the normal winds of the spring, and more or less replace or intermingle with the westerly monsoon current in seasons of drought. The monsoons of 1876, 1877, 1880 and 1883 all afford instances of this. On these occasions, the rainfall of Western and Lower Bengal is often very heavy, which is, in part at least, due to cyclones from the Bay taking a northerly course, as in August 1877 and 1880, instead of the more usual course at this season, to the west or north-west. The Hyderabad and Deccan group also benefit in the same manner, when the autumnal (chiefly September) rain is unusually heavy in the Peninsula, as was conspicuously the case in 1878, and to some extent in 1880; and they share the deficiency, when, as in 1876 and 1881, these autumnal rains are diverted from that region.

The detailed description of the rainfall and its attendant phenomena in the nine years 1875—1883, which occupies a large portion of the second part of this Memoir, affords some elucidation of other cases of compensatory variation, but the numbers of instances afforded by it are hardly sufficient to allow of general conclusions.

As regards the opposition of Lower Bengal and the Carnatic, a conspicuous instance, afforded by the nine years discussed, is that of 1883, in which year the rainfall of the former was 20 per cent. deficient, and that of the latter 15 per cent. in excess of the average. In 1884 the contrast was still greater, the deficiency of the former being 16 per cent., while the excess of the latter was not less than 33 per cent. In 1883 the difference was due to the early cessation of the monsoon rains in Bengal, and their concentration on the Peninsula in September. In October the usual barometric depression over the Bay was apparently concentrated in the neighbourhood of the Carnatic coast, and the rainfall of that province was remarkably heavy. It exceeded the average also in the two following months; and this excess, added to an average or somewhat more than an average fall in the earlier months of the summer monsoon, made up an annual total, surpassed only in four other years of the preceding two decades, and in 1884. In

1884 the monsoon rains in Northern Bengal were light throughout the season, and especially in September. A series of cyclonic storms from the Bay or Chutia Nagpur carried rain to Central and North-Western India, and only the maritime districts of Lower Bengal (and these only in September) received a share of this rainfall. When these storms were over, the rainfall was concentrated in the Carnatic, or in cyclones which traversed that province, and the fall of each of the last three months of the year was in large excess.

The alternative variation of the Central (Sikkim) Himalaya on the one hand, and the Punjab and Rajputana on the other, was most conspicuous in 1875; as regards the Punjab alone it was pronounced also, in 1877, 1879, and 1880. In the first of these years, the rainfall of the Sikkim Himalaya and Northern Bengal was very deficient; that of the Punjab and Rajputana excessive; and it has been shown in the description of the meteorology of that year, that the former was probably due to a series of monsoon storms having crossed Rajputana and affected the Punjab. As an almost invariable rule, such storms originate either over the Bay or in Bengal and Chutia Nagpur, and travel to the west or north-west; and in these cases, the more eastern districts north of the Ganges receive little or no rain. Something similar occurred in 1884, but in that year the rainfall was not carried so far to the north-west, and the Central India states presented the most marked contrast to Bengal.

In 1877, the excessive fall of the Punjab was entirely due to the earlier and later months of the year, the cold weather and spring rainfall. The North-West Himalaya had a similar excess, but the Central Himalaya did not share it; while the summer rains failed both there and in Northern Bengal, as well as in other parts of Northern India. In 1879 and 1880, the relations of the Punjab and the Central Himalaya were reversed, the former having a large deficiency, the latter an excessive rainfall. In 1879 the winter was almost rainless, the spring very dry, and in the Punjab, in most months, the summer rainfall was but small; whereas in Northern Bengal, and on the Himalaya to the north of it, the later months of the monsoon brought more than one very heavy fall, due to small cyclones from the Bay. The early part of 1880 was also very dry on the north-western plains, but an excessive fall of rain and snow on the North-Western Himalaya in July, extending to Ladak and Gilgit, was followed by a prolonged drought on the plains, with westerly winds; and these blew up to Bengal, and, in conjunction with those from the Bay, produced an excessive precipitation in Northern Bengal and Sikkim. There was therefore, in this instance, a direct physical connection between the drought in North-Western India and the excessive rainfall of the Sikkim Himalaya. From these instances it would appear that the monsoon rainfall is heaviest in the Punjab, Rajputana, and Central India, when the easterly branch of the monsoon is strongest and the opposite conditions prevail occasionally (though not invariably) when westerly winds are dominant at this season in Northern India.

Passing now to the second and more comprehensive question, *viz.*, the dependence of drought and flood on other meteorological conditions either in India itself or in neighbouring and indeed distant regions, certain remarkable states of barometric pressure have been described as accompanying the disastrous droughts of 1876 and 1877, some of which have also manifested themselves in other seasons of a similar character.

The first of these is the persistence, or at least constant recurrence, of an excessive atmospheric pressure, which lasted, with brief interruptions, from June 1876 to August 1878,

and was probably intimately connected with the drought, since its temporary interruption was synchronous with a short rainy interval, and its final disappearance with the setting in of the retarded, but in the end abundant, rainfall of 1878. This anomalous condition of the atmosphere was not restricted to India. Although more interrupted, on the general average of the whole period, it was quite as strongly manifested, in the northern hemisphere, at the Russian stations in Siberia and even in European Russia; and in the southern hemisphere in Australia and at the Mauritius; and its more intense phases alternated between the northern and southern hemispheres, culminating in each case in the winter season. At the intermediate stations, Batavia and Singapore, it prevailed as in India.[1] It affected therefore an area extending, at least, from 60° north to 38° south latitude, and in the southern hemisphere over about 100° of longitude.

An examination of the Russian registers since the year 1846 shows that, only in one year, *viz.*, 1860, was an excessive pressure equally general in Northern Asia; and it is noteworthy that this also was a year in which the Indian summer rains failed, the failure being succeeded by a severe famine in the North-Western Provinces. In India, as far as can be judged from the registers of Bombay and Calcutta, there was, on the mean of the year, no corresponding excess of pressure; 1860 was a year of maximum sunspots, and in accordance with the law of barometric oscillation, originally noticed in the 21st volume of *Nature*, the Indian pressure was below the average, though not greatly so. In other years of drought in India, I have been unable to detect any similar correlation; and years in which an excess of pressure in Siberia has been only partial, have been, in some cases, years of drought, in others years of average and well distributed rainfall. Although then, there appears to have been some physical connection between the abnormal high pressure over a great part of the Asiatic Continent in 1876-78, and the droughts of those years in India, it cannot be said, at present, that there is any decided concomitant variation of the two classes of phenomena.

These years of drought were marked by other local peculiarities in the distribution of the atmospheric pressure, which have also recurred with intervals of drought in other years, and have demonstrably a direct physical connection with its immediate causes. They are not, indeed, so pronounced as the regular features of pressure distribution, characteristic of each season of the year, and only modify, without masking the latter; and their character is best seen when separated from the latter, and represented on isabnormal charts of pressure, according to the plan adopted by Dove in the case of temperature anomalies.

The first of these is an anomalous excess of pressure in Western India, centering around the Gulf of Cambay, which appears to be intimately associated with the undue prevalence of westerly winds in Northern India; the second, which often co-exists with this, is a higher pressure than usual down the west of the peninsula, and is accompanied with an abnormal development of northern or north-western winds in the Deccan, Mysore, &c., and since west winds in the former and north-west winds in the latter are the characteristic dry winds of the two regions in question, in both cases these pressure anomalies are associated with drought.

The part played by these dry winds, or, as I have termed them, "land winds," in the meteorology of India, has been noticed more than once in the foregoing pages, as well as

[1] See Report on the Meteorology of India in 1878.

elsewhere. It has been pointed out that, while they are always relatively dry winds, their characteristic temperature varies with the time of year. They are the cool winds that succeed rain in the winter or cold-weather months; the well-known hot winds of April and May; and when they interrupt the summer monsoon, they also bring a rise of temperature; but if rain has already fallen, their heat is mitigated by the evaporation of the land surface over which they sweep. At the season when they normally prevail, the central portion of the Arabian Sea is a seat of maximum pressure, and the winds blowing across the table-land, to the west of the Indus, form a portion of the anticyclonic system around it. Whether this condition of pressure also exists when they occur during the summer monsoon, we have no direct evidence to show; but it is probable that, in some modified form, it does so, and the anomalous excess of pressure around the Gulf of Cambay and that down the west coast of the peninsula are merely its extension over the adjacent portion of India. It is well known that, at such times, fine weather and light winds, the characteristics of anticyclonic tracts, prevail in the northern part of the Arabian Sea.

A very important fact in connection with these winds is, that, at all seasons of the year, they are especially prevalent after snowfall on the North-West Himalaya and, probably, the mountain ranges to the west of the Indus: and the droughts in North-Western India during the summer monsoons in 1868, 1877, and 1878, and that of the peninsula in 1865, followed on the four winters and springs with the heaviest rainfall recorded in the last 22 years; which, in three cases, almost certainly, and probably in all, took the form of excessive snow precipitation on the North-West Himalaya. In two other years of partial drought, 1880 and 1883, although the snowfall of the preceding season was not, on the whole, excessive, it was in one instance unusually late in the spring, and in the other altogether unseasonable, occurring in the earlier part of the monsoon itself. On the other hand, of the four years with the lightest winter and spring rainfall, two were years of good and well-distributed summer rainfall; and a third had the most copious general rainfall in the 22 years. One only, 1873, was a year of generally deficient rainfall in most parts of India. Although, then, copious rain in the winter and spring, with heavy Himalayan snows, seems always to be the forerunner of drought, more or less prolonged, a dry winter and spring do not always presage a well-distributed and ample monsoon rainfall to follow.

These facts, taken in conjunction with the characters of pressure distribution and the winds, during the season immediately preceding the monsoon, have been made the basis of a forecast of the monsoon rainfall, yearly, since 1882. These forecasts for the four years, 1883—1886, have been briefly summarised in the foregoing pages, together with the results of subsequent experience in each case; and the reader may form his own opinion of the measure of success achieved. To me it seems to justify the fundamental principles of the method; but it must be observed that our sources of information respecting the snowfall are as yet very imperfect, and afford us a knowledge of no more than a small portion of the region which, on the hypothesis, is really influential in producing the observed effects. And even supposing the hypothesis to be absolutely valid, more experience is requisite to show how diversities in the distribution of the snowfall precede certain variations in the local prevalence of the dry winds, and more complete data than are accessible to us at present, to enable us to turn such knowledge to account.

The last question discussed in this Memoir is whether there are valid grounds for the belief that the rainfall of India as a whole, or that of any part or parts of it, is subject to the operation of a periodical law. A great variety of cycles have been advocated by persons who have speculated on this subject, but the only one that, so far, seems deserving of serious consideration, is that of 11 years, or approximately 11 years, coinciding with the well-known average sun-spot cycle of Professor Wolf of Zurich.

I have first examined the evidence afforded on this head by the rainfall of India as a whole (with the necessary omission of the unrepresented area, amounting to about one-sixth of India proper with Assam), and with the result that the registers of 22 years yield no support whatever to the hypothesis. In the case of individual portions of the country, however, some *primâ facie* evidence does exist of an undecennial fluctuation; *viz.*, in the annual rainfall of the Carnatic, first noticed by Mr. Norman Lockyer in the Madras registers, and in the winter rainfall of North-Western India, originally noticed by Mr. S. A. Hill. In the former of these cases, the only evidence, hitherto adduced, has been that of a single station, the Madras Observatory; and this has been pronounced, I think on good grounds, to be unsatisfactory and unconvincing. But when the mean rainfall of the whole Carnatic province is substituted for this datum, a very striking undecennial fluctuation appears to underlie the annual variations. It is repeated in each of the two cycles, with much the same leading characters; save that, in the second cycle, there is also a strong double oscillation which is absent from the first. The range is approximately the same in both cycles, amounting to not less than two-fifths of the annual average fall, and being four times as great as the mean deviation of the recorded rainfall of any single year from its hypothetical periodical value: and while the epochs of the two periodical maxima occur almost exactly in corresponding years of the cycle, those of the minima differ by only two years. The process by which I have endeavoured to estimate, numerically, the probability of this fluctuation being the result of a periodical law, has been shown by General Strachey to be invalid, and the numerical estimate given in the text (p. 244) is therefore without weight; but the considerations above formulated hold good, and they seem to me, at all events, to render it improbable that the undecennial fluctuation is a merely fortuitous phenomenon. Such as it is, it is strongly displayed only in the Carnatic, and is masked by fluctuations of shorter period in the other provinces of the peninsula.

The phases of this undecennial fluctuation of the Carnatic rainfall do not coincide with those of the sun-spot curve, nor is their relation to them such as might be expected, on the assumption that the solar condition, indicated by the sun-spots, is the *direct* cause of the rainfall variation. The minimum epoch of the latter appears to precede that of the former by about two years; while the maximum of the latter either coincides with or follows that of the former. The variations of the two are, therefore, by no means concomitant.

In order to test the validity of Mr. Hill's hypothesis, *viz.*, that the winter rainfall of Northern India is subject to an undecennial variation, such that it is heaviest about the time of minimum sun-spots and *vice versâ*, instead of appealing to the same class of data as Mr. Hill, *viz.*, the registers of a few stations, on all parts of the Himalaya, together with those of a larger number scattered over the plains of Northern India, I have taken as my data those of 26 stations on or within the North-Western Himalaya or the western hills, as representing the region in which the winter rains are most copious and regular, and which also afford the best indication of the snowfall; and I have, of necessity,

restricted the period of enquiry to the last 22 years. The result is much less striking than in the case of the Carnatic rainfall, and is best expressed by saying that in both undecennial cycles, there have been winters of exceptionally heavy precipitation about the time of minimum sun-spots; rather preceding than following it; while, of the three years with the lowest precipitation, two occurred either in a year of maximum sun-spots or two years later. So far as the evidence goes, it affords support to Mr. Hill's conclusions, but it is evident that many years' further experience must be accumulated before it will be possible to pronounce conclusively on the question at issue.

The numerical estimate, given in the text, of the probability that the fluctuation depends on some regularly recurrent cause, has, of course, no more validity than the similar estimate of the Carnatic rainfall.

Nearly connected with the question of the periodical variation of the rainfall, is that of the periodical recurrence of droughts and consequent dearths and famines. It has been stated, and the records quoted by the Famine Commissioners substantiate the statement, that during the past century these have recurred in some part or other of the peninsula at intervals of about 10 years (varying from 9 to 12); and it was at one time attempted to identify this periodicity with that independently shown by the Madras rainfall. It has, however, been shown, in the preceding pages, that the fluctuations of the Madras rainfall are by no means identical with those of other parts of the peninsula, and the relations of the years of drought to those of sun-spot minima are so variable that, notwithstanding the apparent periodicity of their recurrence, one cannot but entertain doubts of the interdependence of the two classes of phenomena. It may be noted, too, that on the mean of a century, the average interval of the droughts (after rejection of one that subdivided the ordinary interval into two parts) is 10·36 years, which is appreciably different from that of the sun-spot minima.

An interesting fact first noticed by the Indian Famine Commissioners and illustrated in the preceding text, is that, in not less than five instances during the last century, a drought in the peninsula has been succeeded in the following year by one in Northern India. At present no explanation has been attempted of this remarkable sequence.

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I have now completed my task in accordance with the plan which I originally proposed to myself in undertaking it. I have described the leading features of the rainfall distribution of India according to area and season, and have endeavoured to show how that distribution is related to the form of the land and the orographical features of its surface; and also to those successive changes in the atmospheric pressure, and the direction of the air currents, which follow on the varying action of the sun. As far as our present knowledge suffices for the purpose, I have also described the vicissitudes to which the rainfall is subject in different years, and have traced certain bonds of connection between these and other anomalous features of the meteorology. In this latter field,

the steps, so far taken, are of necessity but those of a pioneer. And indeed, even on the more familiar ground of the normal characters of the rainfall, my work is not, and does not pretend to be, exhaustive. Many topics of scientific interest and much economic importance have either been left untouched or have been passed over with a few casual remarks. While I pen these lines, I am reminded by a friendly and most competent critic, that in the first part of this Memoir, I have omitted to notice the relation of the rainfall to intervals of time shorter than the calendar month; and that a whole group of important questions therewith connected, such as the duration of rain showers, the probability of rain in different seasons and provinces, and the heaviness of the floods for which engineers have to make provision in culverts and bridges, has remained almost or quite unnoticed. This is perfectly true, and I might add others to the list, such as the average and flood rainfall on the catchment areas of the great rivers, the distribution of rainfall with elevation (a subject already locally dealt with by Mr. Hill), and the distribution and frequency of destructive hail-storms. All this I fully acknowledge; but in dealing with so large a subject some restriction of the topics has been unavoidable. To deal with these questions with anything like the fullness they demand, and to illustrate them with the appropriate tabular data, would have expanded the work to probably twice its present limits; and, as it has been executed only by instalments, at such intervals of comparative leisure as I have been able to command, amid the requirements of administrative and other official work, its full execution would have involved an indefinite further postponement of its already retarded issue. These therefore I must leave to a future time, and perhaps to some more able successor.

## POSTSCRIPT.

After the greater part of the text had been printed off, the following communication was received from the Chief Commissioner of the Central Provinces, in reply to an enquiry with reference to the trustworthiness of the old rainfall registers of those provinces, addressed to him when I was engaged on the discussion of this subject at pages 136 to 141:—

"The Chief Commissioner fears that the records of rainfall, registered in the Revenue Department, of these provinces for years previous to 1883, cannot be accepted as altogether reliable. Ten of the stations, for which you quote figures,[1] the rainfall has been, since 1869, registered at observatories in the charge of the Medical Department, but the Deputy Surgeon General is unable to state whether the pattern of gauge has remained unchanged at those observatories since the year of their transfer to his department, although it has certainly remained unchanged since 1876. As regards the registration effected in the Revenue Department, it is to be remarked that previously to 1877, the instruments used were either the Rurki rod and float or the square self-registering gauge. In 1877, a number of Symons' gauges were distributed; but in 1883, it was found that a considerable proportion of the gauges in use were of one or other of the old patterns, and, moreover, that registration was frequently effected in a very careless fashion. Since that year (1883) matters have been on a more satisfactory footing, but the statistics which were previously collected would form a very unsafe basis for generalisation."

[1] The stations enumerated in the Table on page 138.

The ten stations referred to in the above extract are the meteorological observatories established by Dr. S. C. Townshend, and I believe their registers are as trustworthy as the large majority of the observatory registers dealt with in the foregoing pages and in the annual reports of the Department. And it may be observed that, except in the case of Dhamtari (a small tehsildari station) the evidence afforded by the remaining (revenue) stations is quite accordant with that furnished by the observatories. The Chief Commissioner's remarks evidently have reference, not only to the few sudder stations (chief towns of the districts,) included in the list on page 138, but also to the more numerous tehsildari stations enumerated in Appendix B, a summary of the registers of which, together with those of the A stations, is given at page 147, in line B of the Central Provinces, for the five years 1877-1881. Doubtless at some of these, the registers have not been very trustworthy; but it is to be observed in this table that, whereas the average of all the registers is about 3 inches below that of the sudder stations, the annual differences of the two series are as accordant as could reasonably be expected. The inherent fault of the float gauge is that, in unskilled hands, it generally gives too small a measurement; and this may account in part for the above deficiency of the averages; but this would not seriously affect the comparison of the rainfall registered by the same instrument in different years, as indeed appears to be the case from the table in question. In any case, nearly one-half of the registers summarised at page 138 are those of observatories. Taken by themselves, they fully bear out the conclusions deduced from the whole of the registers; and I think therefore that it would be premature to reject the evidence afforded by the table.

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# APPENDIX A.

The following tables give the registered monthly rainfall of all the stations enumerated at pages 4 to 14 of the text, as far as I have it on record, and in addition, those of a few stations in Baluchistan, the North-Western Himalaya, and Rajputana, not included in the list. At the time when the earlier part of this Memoir was written, many of these had been too recently established to allow of any sufficiently approximate estimate of their respective averages; but the addition of the three years 1884—1886 has improved their position in this respect, and I have considered it desirable, therefore, in the appendix now published, to fill in, to some extent at least, some of the more serious lacunæ of the original data. With a view to rendering the whole record as complete as possible up to date, I have added to all stations the registers of the three additional years, and while the mean values up to 1883, adopted in the foregoing pages, are retained as originally computed, I have also given the corrected means of the whole period up to 1886 inclusive.

The annual mean total is the sum of the monthly averages, not that of the figures in the column of the annual rainfall, as, in many cases, the latter are more or less imperfect. Where the register of the year is deficient only in the returns of one or two months of the dry season, I have noted these doubtful annual values with a [?]; but where there is reason to believe that such imperfect totals would be seriously misleading, they have been omitted.

The latitudes and longitudes are taken, to the nearest minute of arc, from the Indian Atlas sheets, on the scale of 4 miles to the inch. The elevations of all meteorological observatories have been ascertained by spirit levelling (in most cases, on the plains of India, by lines of levels carried to mean sea-level by the Survey of India), and those of many of the rain-gauge stations have been determined in the same manner. For all, or the proximate data of all, I am indebted to the office of the Survey of India.

## No. o A. QUETTA.

Latitude N. 30° 11′. Longitude E. 67° 3′. Elevation 5,501 feet.

Administration: BELUCHISTAN.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1878 | 0·63 | 3·40 | 0·64 | 0·98 | 0·61 | ... | 0·40 | 2·22 | 0·11 | ... | ... | ... | 8·99 |
| 1879 | 0·18 | 1·61 | 1·46 | 0·26 | 0·26 | 0·26 | ... | 0·16 | ... | ... | ... | ... | 4·19 |
| 1880 | 0·25 | 0·35 | 0·90 | 0·18 | ... | 0·11 | 0·01 | ... | 1·15 | ... | ... | 2·97 | 5·92 |
| 1881 | 0·13 | 2·57 | 2·82 | 2·35 | ... | 0·50 | 1·44 | 0·06 | ... | ... | ... | 0·01 | 9·88 |
| 1882 | 2·16 | 1·84 | 1·77 | 1·19 | 0·14 | ... | 2·68 | 0·98 | ... | ... | ... | 0·02 | 10·78 |
| 1883 | 2·32 | 0·26 | 3·83 | 0·69 | 0·88 | 0·13 | 1·46 | ... | ... | ... | ... | 0·19 | 9·76 |
| Mean | 0·95 | 1·67 | 1·90 | 0·94 | 0·32 | 0·17 | 1·00 | 0·57 | 0·21 | ... | ... | 0·53 | 8·26 |
| 1884 | 0·08 | 2·44 | 2·21 | 0·84 | 0·37 | 0·09 | 0·32 | 0·42 | 0·68 | 0·10 | 0·12 | ... | 7·67 |
| 1885 | 6·37 | 2·13 | 3·84 | 5·08 | 1·96 | 0·01 | ... | 1·25 | 0·11 | 0·82 | ... | 0·01 | 21·58 |
| 1886 | 2·01 | 2·08 | 4·00 | 0·09 | 0·41 | ... | 0·54 | ... | ... | ... | 0·25 | 0·19 | 9·57 |
| Mean | 1·57 | 1·85 | 2·39 | 1·30 | 0·51 | 0·12 | 0·76 | 0·57 | 0·23 | 0·10 | 00·4 | 0·38 | 9·82 |

## No. o B. KELAT.

Latitude N. 28° 53′. Longitude E. 66° 28′. Elevation 6,514 feet.

Administration: BELUCHISTAN.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ? | ? | ? | ? | ? | ? | ... | 2·23 | ... | ... | ? | ? | ? |
| 1877 | ? | ? | ? | ? | ? | ... | ... | ... | ... | 0·66 | 1·16 | 1·87 | ? |
| 1878 | 0·80 | 4·09 | 1·00 | 0·23 | ... | ... | 1·40 | 1·22 | ... | ... | ? | ... | 8·74? |
| 1879 | ... | 1·49 | 3·36 | ... | 0·05 | 0·18 | 0·21 | ... | ... | ... | ? | ? | 5·29? |
| 1880 | } Not on record. | | | | | | | | | | | | |
| 1881 | | | | | | | | | | | | | |
| 1882 | | | | | | | | | | | | | |
| 1883 | 1·22 | 0·86 | 3·41 | 0·19 | ... | ... | 1·13 | ... | ... | ... | ... | 0·21 | 7·02 |
| Mean | 0·67 | 2·15 | 2·59 | 0·14 | 0·02 | 0·05 | 0·55 | 0·69 | ... | 0·13 | 0·58 | 0·69 | 8·26 |
| 1884 | 0·12 | 2·60 | 1·91 | 1·32 | ... | ... | 0·52 | ... | 0·11 | ... | ... | ... | 6·58 |
| 1885 | 4·71 | 1·33 | 2·68 | 2·51 | 1·35 | 0·25 | ... | 0·77 | ... | ... | ... | ... | 13·60 |
| 1886 | 2·18 | 0·97 | 3·19 | ... | 0·46 | ... | 0·12 | 0·07 | ... | ... | 0·34 | ... | 7·33 |
| Mean | 1·51 | 1·89 | 2·59 | 0·71 | 0·31 | 0·06 | 0·42 | 0·54 | 0·01 | 0·09 | 0·30 | 0·35 | 8·78 |

No. 1. GILGIT.

Latitude N. 35° 48′. Longitude E. 74° 25′. Elevation 4,890 feet.

Administration: KASHMIR. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1879 | ... | ... | 0·82 | 1·78 | 0·07 | ... | ... | 0·23 | 0·15 | ... | ... | ... | 3·05 |
| 1880 | 0·20 | 0·06 | ... | 2·01 | ... | ... | 1·38 | 0·64 | ... | ... | ? | ... | 4·28? |
| 1881 | ... | 0·23 | 0·14 | 0·46 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| Mean | 0·07 | 0·10 | 0·32 | 1·42 | 0·04 | ... | 0·69 | 0·44 | 0·08 | ... | ? | ... | 3·16? |

No. 2. LEH.

Latitude N. 34° 10′. Longitude E. 77° 42′. Elevation 11,500 feet.

Administration: KASHMIR. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | ... | ... | 0·16 | 0·10 | ... | 0·18 | ... | ... | ... | ... | 0·44 |
| 1877 | 0·31 | 0·04 | 0·03 | ... | ... | ... | ... | ... | 0·63 | ... | ... | ... | 1·01 |
| 1878 | ... | ... | ... | ... | ... | ... | 0·59 | 1·94 | ... | ... | ... | ... | 2·53 |
| 1879 | 0·05 | 0·05 | 0·45 | 0·06 | ... | 0·15 | ... | 0·58 | 0·03 | 4·00 | ... | 0·02 | 5·39 |
| 1880 | 0·25 | 0·24 | 0·05 | 0·10 | 0·26 | 0·82 | 0·76 | 0·18 | 0·08 | ... | 0·06 | 0·62 | 3·42 |
| 1881 | 0·07 | 0·14 | 0·14 | 0·45 | 0·20 | ... | 1·77 | 0·57 | ... | ... | ... | ... | 3·34 |
| 1882 | 0·58 | 0·36 | 0·35 | 0·06 | 0·06 | 0·08 | 1·69 | 0·25 | 0·65 | ... | 0·01 | ... | 4·09 |
| 1883 | 0·33 | 0·15 | 0·16 | 0·07 | 0·12 | ... | ... | 0·32 | 0·07 | 0·18 | 0·23 | 0·02 | 1·65 |
| Mean | 0·20 | 0·12 | 0·15 | 0·09 | 0·10 | 0·14 | 0·60 | 0·50 | 0·18 | 0·52 | 0·04 | 0·08 | 2·72 |
| 1884 | 0·15 | 1·03 | 0·12 | 0·13 | ... | 0·30 | ... | 0·21 | 0·01 | ... | ... | ... | 1·95 |
| 1885 | 0·50 | 0·28 | 0·23 | ... | 0·34 | 0·19 | ... | ... | ... | 0·43 | ... | 0·20 | 2·17 |
| 1886 | 0·33 | 0·29 | 0·52 | 0·17 | 0·01 | 0·55 | 0·21 | 0·22 | ... | 0·01 | ... | 0·05 | 2·36 |
| Mean | 0·23 | 0·23 | 0·19 | 0·09 | 0·10 | 0·29 | 0·46 | 0·40 | 0·13 | 0·42 | 0·03 | 0·08 | 2·56. |

No. 3. MANSAHRA.

Latitude N. 34° 20′. Longitude E. 73° 15′. Elevation 2,500 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ? | ? | 4·10 | 2·20 | 6·90 | 2·30 | 5·80 | 6·10 | 2·10 | 0·80 | ... | ? | 30·30? |
| 1869 | ? | 4·40 | 19·10 | 0·70 | 0·10 | 1·10 | 7·80 | 4·60 | 2·40 | 0·70 | 2·70 | 0·60 | 44·20? |
| 1870 | ... | 0·70 | 5·20 | 0·80 | 0·50 | 0·70 | 11·40 | 4·30 | 4·60 | 3·20 | ? | ... | 31·40? |
| 1871 | 0·20 | 8·10 | ? | 2·00 | 1·00 | 9·10 | 4·70 | 6·80 | 2·10 | ... | ... | 4·80 | 38·80? |

MANSAHRA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | 3·60 | 2·80 | ? | 2·10 | 4·80 | 0·50 | 16·50 | 5·40 | 2·20 | 1·10 | 0·50 | 0·10 | 40·00 ? |
| 1873 | 5·90 | 0·90 | ? | 0·60 | 5·60 | 0·30 | 10·00 | 3·10 | 0·70 | 2·10 | ... | 1·60 | 30·80 ? |
| 1874 | 3·00 | 1·40 | 5·80 | 3·10 | 0·20 | 1·10 | 9·00 | 9·00 | 1·90 | ... | ... | 0 30 | 34·80 |
| 1875 | 0·40 | 8·80 | 1·80 | 1·30 | 1·20 | 0·60 | 14·00 | 10·70 | 3·60 | 2·00 | 0·50 | 5·30 | 50·20 |
| 1876 | 2·80 | 1·50 | 1·90 | 3·30 | 2·00 | 1·60 | 15·60 | 14·10 | 2·10 | 2·10 | 1·30 | 0·30 | 48·60 |
| 1877 | 1·90 | 4·60 | 4·30 | 6·70 | 2·40 | 2·70 | 2·40 | 2·60 | 1·00 | ? | ? | 8·70 | 37·30 ? |
| 1878 | 1·70 | 6·20 | 1·30 | 8·40 | 2·70 | 0·80 | 3·60 | 7·90 | 0·10 | 0·30 | ... | ... | 33·00 |
| 1879 | ... | 0·50 | 3·90 | 0·40 | 0·60 | 2·30 | 5·10 | 11·60 | 1·90 | 1·50 | ... | 4·50 | 32·30 |
| 1880 | 0·10 | 3·30 | 0·30 | 0·70 | 1·60 | 4·80 | 6·30 | 2·90 | 3·20 | 0·30 | ... | 1·30 | 24·80 |
| 1881 | ... | 3·80 | 3·50 | 10·60 | 2·00 | 5·50 | 5·10 | 8·30 | 2·00 | 0·70 | ... | 2·40 | 43·90 |
| 1882 | 2·40 | 2·10 | 2·20 | 3·70 | ... | 0·60 | 8·70 | 7·70 | 6·10 | 0·50 | ... | 0·70 | 34·70 |
| 1883 | 3·90 | 2·50 | 1·50 | 2·40 | 3·10 | 1·40 | 3·40 | 7·70 | 4·60 | 0·50 | 3·80 | 0·70 | 35·50 |
| Mean | 1·85 | 3·44 | 4·22 | 3·06 | 2·17 | 2·21 | 8·09 | 7·05 | 2·54 | 1·05 | 0·66 | 2·09 | 38·43 |
| 1884 | 3·00 | 2·10 | 5·60 | 1·70 | 0·30 | 1·70 | 6·50 | 16·10 | 3·10 | 0·60 | 0·90 | ... | 41·60 |
| 1885 | 9·90 | 1·80 | 3·70 | 7·80 | 5·80 | 0·70 | 3·40 | 11·10 | 3·50 | 0·40 | ... | 1·00 | 49·10 |
| 1886 | 3·50 | 3·70 | 11·40 | 1·20 | 2·20 | 1·20 | 6·70 | 6·00 | 4·50 | 1·60 | ... | 3·20 | 45·20 |
| Mean | 2·49 | 3·29 | 4·73 | 3·14 | 2·26 | 2·05 | 7·68 | 7·68 | 2·72 | 1·02 | 0·59 | 1·97 | 39·62 |

No. 4. ABBOTTABAD.

Latitude N. 34° 9′. Longitude E. 73° 16′. Elevation 4,166 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1859 | ? | ? | ? | ? | 2·70 | 4·40 | 4·40 | 9·00 | 4·90 | 0·30 | 0·60 | 1·40 | ? |
| 1860 | 2·60 | 3·90 | 5·60 | 1·10 | 1·70 | 4·70 | 8·80 | 1·70 | ... | ... | ... | ... | 30·10 |
| 1861 | 5·20 | 2·40 | 1·70 | ... | 0·50 | 1·80 | 14·10 | 10·10 | 2·30 | 0·80 | ... | 1·90 | 40·80 |
| 1862 | 0·80 | 2·30 | 4·80 | 3·40 | 2·40 | 1·50 | 10·60 | 3·50 | 1·90 | 1·10 | 2·40 | 0·40 | 35·10 |
| 1863 | 3·90 | 2·80 | 1·50 | 1·40 | 0·20 | 3·10 | 15·20 | 8·70 | 1·60 | ... | 0·10 | 4·40 | 42·90 |
| 1864 | 3·30 | 2·40 | 1·70 | 7·40 | 10·90 | 0·60 | 3·30 | 10·70 | 2·50 | 0·50 | ... | 7·70 | 51·00 |
| 1865 | 4·50 | 5·40 | 7·70 | 5·40 | 0·40 | 0·70 | 6·60 | 5·30 | 8·00 | ... | 2·60 | 6·40 | 53·00 |
| 1866 | 5·20 | 1·30 | 4·30 | 2·40 | 1·90 | 0·20 | 6·40 | 12·00 | 1·50 | 0·10 | ... | ... | 35·30 |
| 1867 | 2·70 | 6·70 | 1·00 | 4·00 | 6·10 | 1·20 | 7·20 | 11·80 | 3·30 | 1·30 | 0·20 | 1·50 | 47·00 |
| 1868 | 4·10 | 5·70 | 9·10 | 5·00 | 1·70 | 3·80 | 7·30 | 2·90 | 0·90 | 0·80 | ... | 2·90 | 44·20 |
| 1869 | 3·20 | 0·80 | 16·50 | 0·40 | 0·30 | 3·10 | 8·90 | 4·10 | 6·00 | 1·20 | 0·10 | 1·20 | 45·80 |
| 1870 | 0·80 | 1·70 | 4·50 | 0·40 | 5·80 | 7·30 | 5·10 | 6·20 | 3·00 | 1·60 | ... | 0·90 | 32·30 |
| 1871 | 0·30 | 9·60 | 1·60 | 3·10 | 1·60 | 11·30 | 11·90 | 4·50 | 1·60 | 0·50 | ... | 3·70 | 49·70 |
| 1872 | 6·30 | 4·20 | 6·90 | 3·30 | 6·60 | 3·40 | 18·50 | 11·80 | 6·60 | 1·00 | 0·30 | 0·10 | 69·00 |
| 1873 | 1·90 | 1·60 | 1·80 | 0·80 | 5·20 | 0·50 | 8·10 | 8·00 | 0·50 | 0·40 | ... | 1·60 | 30·40 |
| 1874 | 4·30 | 1·00 | 6·20 | 2·70 | 0·80 | 3·60 | 7·40 | 11·20 | 2·60 | ... | ... | ... | 39·80 |
| 1875 | 0·40 | 7·50 | 2·10 | 0·60 | 4·20 | 2·10 | 7·90 | 12·20 | 7·10 | 3·80 | 3·30 | 4·70 | 55·90 |
| 1876 | 2·40 | 1·80 | 4·70 | 2·10 | 2·90 | 0·90 | 12·70 | 15·80 | 2·10 | 4·00 | 2·40 | 0·50 | 52·30 |

ABBOTTABAD—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | 3·10 | 6·70 | 4·50 | 8·60 | 5·40 | 5·70 | 3·30 | 3·10 | 2·70 | 6·20 | 9·80 | 10·20 | 69·30 |
| 1878 | 3·30 | 9·50 | 1·20 | 5·50 | 7·60 | 0·50 | 4·40 | 13·50 | 1·50 | 1·30 | ... | ... | 48·30 |
| 1879 | ... | 0·40 | 5·80 | 0·30 | 1·20 | 3·70 | 7·40 | 12·10 | 2·60 | ... | ... | 2·20 | 35·70 |
| 1880 | 0·90 | 3·50 | 0·40 | 0·60 | 1·30 | 6·40 | 8·50 | 6·40 | 3·70 | 0·10 | ... | 1·10 | 32·90 |
| 1881 | 0·40 | 4·50 | 4·60 | 10·80 | 1·60 | 3·60 | 7·40 | 11·20 | 1·80 | 0·70 | ... | 1·90 | 48·50 |
| 1882 | 3·70 | 1·80 | 3·30 | 5·10 | 0·60 | 0·90 | 11·20 | 13·10 | 6·60 | 0·40 | ... | 0·70 | 47·40 |
| 1883 | 7·00 | 2·80 | 0·90 | 2·30 | 9·70 | 1·00 | 8·30 | 6·60 | 3·50 | 0·30 | 3·80 | 0·75 | 46·95 |
| Mean | **2·93** | **3·76** | **4·27** | **3·20** | **3·13** | **3·04** | **8·60** | **8·62** | **3·15** | **1·06** | **1·02** | **2·25** | **45·03** |
| 1884 | 3·48 | 4·61 | 5·59 | 5·68 | 0·52 | 2·22 | 7·87 | 17·42 | 4·82 | 1·37 | 0·65 | ... | 54·23 |
| 1885 | 8·12 | 2·26 | 3·99 | 7·15 | 6·99 | 1·42 | 4·54 | 7·68 | 4·48 | 0·60 | ... | 1·65 | 48·88 |
| 1886 | 5·12 | 4·64 | 6·45 | 2·53 | 3·59 | 2·14 | 5·17 | 9·77 | 3·72 | 1·46 | 0·76 | 3·31 | 48·66 |
| Mean | **3·22** | **3·77** | **4·39** | **3·41** | **3·19** | **2·92** | **8·30** | **8·94** | **3·28** | **1·07** | **0·96** | **2·18** | **45·63** |

No. 5 A. MURREE (*Brewery.*)

Latitude N. 33° 54′. Longitude E. 73° 27′. Elevation 6,413 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 0·93 | 0·73 | 7·15 | 1·21 | 1·53 | 8·25 | 10·12 | 16·22 | 3·84 | 0·89 | ... | 1·18 | 52·05 |
| 1871 | 1·22 | 14·14 | 1·49 | 2·89 | 0·82 | 13·96 | 17·37 | 8·18 | 4·26 | 0·06 | ... | 5·36 | 69·75 |
| 1872 | 6·57 | 7·15 | 5·75 | 3·70 | 6·24 | 5·82 | 25·12 | 16·33 | 5·01 | 0·51 | 1·24 | 0·38 | 83·82 |
| 1873 | 5·10 | 1·46 | 1·58 | 0·51 | 6·72 | 0·79 | 15·72 | 9·34 | 4·94 | 2·03 | 1·41 | 2·09 | 51·69 |
| 1874 | 5·88 | 1·41 | 7·69 | 3·41 | 1·22 | 2·97 | 16·74 | 12·83 | 3·63 | ... | ... | 0·12 | 55·90 |
| 1875 | 1·02 | 9·60 | 2·91 | 0·97 | 3·90 | 1·77 | 19·82 | 16·33 | 7·83 | 3·15 | 1·57 | 8·89 | 77·76 |
| 1876 | 6·36 | 3·79 | 4·31 | 3·48 | 3·18 | 2·41 | 19·99 | 18·02 | 3·75 | 3·65 | 4·12 | 0·30 | 73·36 |
| 1877 | 5·81 | 15·89 | 5·60 | 8·18 | 3·36 | 1·70 | 2·23 | 1·15 | 4·00 | 9·46 | 10·22 | 10·12 | 77·72 |
| 1878 | 3·62 | 10·53 | 0·78 | 8·03 | 7·59 | 0·80 | 8·68 | 24·50 | 2·61 | 0·99 | ... | 0·03 | 68·16 |
| 1879 | 0·04 | 0·41 | 5·83 | 0·55 | 0·70 | 5·93 | 7·46 | 18·46 | 6·46 | ... | 0·02 | 2·63 | 48·49 |
| 1880 | 1·48 | 4·69 | 0·26 | 0·93 | 3·12 | 4·82 | 10·81 | 9·39 | 8·72 | 0·30 | 0·12 | 3·39 | 48·03 |
| 1881 | 1·18 | 7·48 | 5·78 | 8·87 | 2·22 | 2·56 | 6·40 | 14·78 | 1·76 | 0·84 | ... | 0·55 | 52·42 |
| 1882 | 3·04 | 2·85 | 2·72 | 5·36 | 1·06 | 0·59 | 19·02 | 12·49 | 9·02 | 0·02 | ... | 0·58 | 56·75 |
| 1883 | 5·35 | 1·05 | 3·85 | 1·73 | 4·41 | 0·51 | 6·70 | 6·92 | 8·58 | 1·32 | 5·95 | 0·66 | 47·03 |
| Mean | **3·40** | **5·80** | **3·98** | **3·56** | **3·29** | **3·78** | **13·30** | **13·21** | **5·32** | **1·66** | **1·76** | **2·59** | **61·65** |
| 1884 | 3·54 | 4·45 | 8·01 | 2·76 | 0·91 | 2·50 | 9·20 | 15·65 | 11·58 | 1·31 | 0·40 | ... | 60·31 |
| 1885 | 14·24 | 4·25 | 3·98 | 6·73 | 9·76 | 1·62 | 2·78 | 16·35 | 3·73 | 1·41 | ... | 1·53 | 66·38 |
| 1886 | 7·35 | 5·86 | 8·50 | 2·46 | 3·55 | 0·56 | 9·65 | 6·05 | 5·63 | 2·83 | 0·54 | 2·45 | 55·43 |
| Mean | **4·28** | **5·63** | **4·48** | **3·63** | **3·55** | **3·39** | **12·22** | **13·12** | **5·61** | **1·69** | **1·51** | **2·37** | **61·48** |

No. 5 B. MURREE (*Observatory.*)

Latitude N. 33° 54.′ Longitude E. 73° 27.′ Elevation 6,344 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | ... | 3·43 | 2·45 | 1·16 | 3·60 | 2·26 | 18·80 | 17·27 | 7·12 | 2·77 | 1·62 | 1·95 | 62·43 |
| 1876 | ... | 1·19 | 3·14 | 3·12 | 3·20 | 2·50 | 18·97 | 18·83 | 3·05 | 4·41 | 1·92 | ... | 60·33 |
| 1877 | 0·08 | ... | 2·73 | 7·78 | 2·69 | 1·95 | 2·52 | 1·08 | 3·27 | 9·10 | 10·59 | 5·37 | 47·76 |
| 1878 | 9·12 | 9·12 | 0·48 | 8·25 | 7·52 | 1·01 | 9·49 | 22·58 | 2·47 | 1·17 | ... | ... | 63·21 |
| 1879 | ... | 0·39 | 5·20 | 0·60 | 0·82 | 5·77 | 7·39 | 19·33 | 5·73 | 0·03 | ... | ... | 45·26 |
| 1880 | 0·53 | 0·28 | 0·17 | 0·78 | 3·02 | 4·23 | 11·25 | 8·03 | 9·02 | 0·23 | 0·12 | 1·46 | 39·12 |
| 1881 | ... | 6·29 | 2·96 | 11·22 | 3·04 | 4·56 | 7·48 | 17·93 | 2·00 | 1·06 | ... | 0·67 | 57·21 |
| 1882 | 3·01 | 2·89 | 2·31 | 5·06 | 0·94 | 1·53 | 21·38 | 13·69 | 9·31 | 0·21 | ... | 0·46 | 60·79 |
| 1883 | 5·75 | 0·35 | 3·52 | 1·54 | 4·39 | 0·43 | 8·19 | 6·82 | 8·25 | 1·25 | 5·41 | 0·28 | 46·18 |
| Mean | 1·17 | 2·66 | 2·55 | 4·39 | 3·25 | 2·69 | 11·72 | 14·02 | 5·58 | 2·25 | 2·18 | 1·13 | 53·59 |
| 1884 | 2·85 | 9·25 | 7·01 | 2·66 | 0·81 | 2·26 | 10·95 | 16·28 | 12·78 | 1·50 | 0·48 | ... | 66·83 |
| 1885 | 14·41 | 3·63 | 4·39 | 6·54 | 11·46 | 2·02 | 3·20 | 18·08 | 4·63 | 1·43 | ... | 1·98 | 71·77 |
| 1886 | 5·62 | 4·00 | 10·08 | 2·55 | 4·08 | 0·60 | 12·17 | 7·54 | 5·43 | 2·94 | 0·50 | 2·50 | 58·01 |
| Mean | 2·78 | 3·40 | 3·70 | 4·27 | 3.80 | 2·43 | 10·98 | 14·01 | 6·09 | 2·18 | 1·72 | 1·22 | 56·58 |

No. 6. DALHOUSIE.

Latitude N. 32° 32′. Longitude E. 76° 1′. Elevation 6,740 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | P | P | P | 3·60 | 3·70 | 8·70 | 13·50 | 11·30 | 1·70 | ... | P | 0·60 | P |
| 1869 | 1·00 | ... | 3·00 | ... | ... | 5·10 | 20·50 | 10·30 | 27·70 | 3·00 | P | P | 70·60 P |
| 1870 | P | P | P | 0·60 | 0·20 | 2·60 | 27·20 | 15·30 | 9·10 | 10·60 | P | P | P |
| 1871 | P | P | P | 1·50 | 1·20 | 19·30 | 43·20 | 28·70 | 9·20 | ... | ... | P | P |
| 1872 | P | P | P | 1·40 | 4·60 | 6·10 | 23·00 | 27·90 | 9·40 | 1·70 | ... | P | P |
| 1873 | P | P | P | P | P | 1·20 | 26·50 | 16·10 | 6·60 | 0·50 | 0·90 | P | P |
| 1874 | P | P | P | 1·70 | 0·20 | 7·00 | 38·00 | 20·00 | 6·60 | ... | P | P | P |
| 1875 | P | 8·40 | 1·50 | 0·50 | 1·60 | 6·90 | 30·10 | 30·50 | 20·60 | 5·10 | 0·30 | 3·50 | 109·00 P |
| 1876 | 3·00 | 4·90 | 0·10 | 7·10 | 1·60 | 3·30 | 34·40 | 29·70 | 9·70 | 1·40 | ... | ... | 95·20 |
| 1877 | 0·60 | 1·20 | 6·60 | 8·30 | 8·80 | 9·40 | 7·00 | 7·00 | 8·10 | 6·20 | 7·20 | 6·40 | 76·80 |
| 1878 | 1·20 | 9·30 | 1·20 | 5·20 | 6·80 | 1·40 | 18·10 | 39·00 | 1·40 | 0·50 | ... | ... | 84·10 |
| 1879 | ... | ... | 7·60 | ... | 0·20 | 8·40 | 15·20 | 55·00 | 4·00 | ... | ... | 0·40 | 90·80 |
| 1880 | 1·10 | 5·50 | ... | 0·20 | 3·00 | 12·50 | 43·90 | 6·80 | 5·50 | ... | ... | 3·80 | 82·30 |
| 1881 | 0·70 | 12·30 | 7·60 | 6·80 | 3·80 | 10·10 | P | P | P | P | P | P | P |
| 1882 | P | 7·60 | 1·30 | 7·10 | 2·20 | 5·80 | 36·70 | 26·30 | 10·80 | ... | ... | 0·70 | 98·50 P |
| 1883 | 4·80 | 2·10 | 2·90 | 1·90 | 1·90 | 3·60 | 14·00 | 12·90 | 10·30 | 1·00 | 2·90 | 1·00 | 59·30 |
| Mean | 1·55 | 5·13 | 3·18 | 3·06 | 2·65 | 6·96 | 26·09 | 22·45 | 9·38 | 2·00 | 1·03 | 1·82 | 85·30 |

DALHOUSIE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 2·30 | 5·60 | 10·80 | 1·30 | 0·30 | 6 00 | 26·70 | 30·00 | 7·30 | 0·30 | 0·20 | 0·70 | 91·50 |
| 1885 | 4·60 | 0·80 | 4·30 | 6·20 | 12·50 | 2·20 | 14·70 | 21·90 | 3·20 | 0·70 | ... | 7·30 | 78·40 |
| 1886 | 7·20 | 1·80 | 9·10 | 1·00 | 5·80 | 10·40 | 30·50 | 23·60 | 2·70 | 0·80 | ... | 2·90 | 95·80 |
| Mean | 2·41 | 4·58 | 4·31 | 3·02 | 3·24 | 6·84 | 25·73 | 22·91 | 8·55 | 1·77 | 0·82 | 2·28 | 86·46 |

No. 7. DHARMSALA.

Latitude N. 32° 16′. Longitude E. 76° 23′. Elevation 4,500 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1853 | 3·75 | 0·75 | 2·25 | 5·25 | 2·50 | 12·13 | 37·38 | 19·13 | 30·25 | 8·13 | ... | ... | 121·52 |
| 1854 | 10·75 | 3·00 | ... | 3·25 | 4·13 | 17·75 | 35·25 | 68·50 | 20·88 | 3·50 | ... | 4·75 | 171·76 |
| 1855 | 1·75 | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1856 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | ? | ? | ? | ? | 5·50 | 18·10 | 45·20 | 34·60 | 5·40 | ... | ... | 2·70 | ? |
| 1862 | 6·50 | 0·10 | 6·10 | 2·00 | 2·30 | 5·80 | 55·80 | 56·60 | 15·30 | 3·30 | ... | 1·50 | 155·30 |
| 1863 | 4·70 | 1·40 | 3·70 | 3·30 | 0·30 | 23·50 | 46·60 | 36·70 | 11·10 | 6·40 | 0·80 | 3·90 | 142·40 |
| 1864 | 3·00 | 7·40 | 3·70 | 3·80 | 2·20 | 0·80 | 25·00 | 31·20 | 1·90 | 1·10 | ... | 6·90 | 87·00 |
| 1865 | 4·20 | 13·60 | 10·20 | 2·70 | 3·60 | 0·60 | 9·60 | 51·60 | 15·90 | ... | ... | 5·80 | 117·80 |
| 1866 | 9·40 | 1·30 | 0·40 | 1·40 | ... | 6·90 | 35·40 | 39·30 | 1·20 | 2·90 | ... | ... | 98·20 |
| 1867 | 2·30 | 1·70 | 2·90 | 1·90 | 7·90 | 3·30 | 24·20 | 26·80 | ... | 0·20 | ... | 0·30 | 71·50 |
| 1868 | 5·20 | 14·40 | 4·80 | 3·20 | 0·50 | 11·90 | 36·80 | 22·40 | 2·60 | ... | ... | 1·30 | 103·10 |
| 1869 | ... | 2·70 | 16·40 | 0·70 | ... | 7·10 | 29·60 | 33·70 | 31·20 | 2·20 | ... | 1·50 | 125·10 |
| 1870 | 2·00 | 0·80 | 5·70 | 1·30 | ... | 10·00 | 21·80 | 19·30 | 3·50 | ... | ... | ... | 64·40 |
| 1871 | 2·00 | 13·50 | ... | 0·50 | 0·50 | 35·50 | 79·10 | 49·90 | 7·30 | ... | ... | 2·80 | 191·10 |
| 1872 | 4·90 | 0·60 | 1·50 | 2·50 | 4·20 | 18·60 | 50·60 | 37·20 | 24·20 | 1·20 | ... | 0·90 | 146·40 |
| 1873 | 7·40 | 0·90 | 2·40 | 0·30 | 4·00 | 2·10 | 42·10 | 37·20 | 11·20 | 1·30 | 0·30 | 2·30 | 111·50 |
| 1874 | 3·60 | 9·20 | 6·60 | 0·30 | 0·30 | 19·90 | 53·80 | 49·00 | 15·90 | ... | ... | ... | 158·60 |
| 1875 | 3·10 | 5·50 | 1·60 | 0·50 | 3·40 | 10·50 | 57·40 | 47·10 | 23·70 | 2·00 | 0·10 | 1·90 | 156·80 |
| 1876 | 3·10 | 2·50 | 4·50 | 4·60 | 1·30 | 1·80 | 57·60 | 48·50 | 14·30 | 2·60 | ... | ... | 140·80 |
| 1877 | 9·00 | 5·30 | 5·20 | 6·60 | 7·00 | 6·10 | 13·90 | 7·00 | 14·80 | 4·30 | 5·40 | 11·70 | 96·30 |
| 1878 | 2·40 | 8·50 | 1·30 | 4·30 | 11·20 | 0·50 | 35·50 | 66·80 | 9·30 | 1·60 | ... | ... | 141·40 |
| 1879 | 0·30 | 0·70 | 10·70 | 0·20 | 0·40 | 17·50 | 47·70 | 62·30 | 20·10 | ... | ... | 2·80 | 162·70 |
| 1880 | 3·70 | 9·40 | ... | 0·20 | 1·50 | 8·20 | 65·40 | 18·27 | 9·07 | ... | 0·85 | 3·32 | 119·91 |
| 1881 | 0·11 | 5·06 | 8·85 | 1·36 | 3·48 | 10·00 | 26·71 | 29·96 | 14·47 | ... | ... | ... | 100·00 |
| 1882 | 5·81 | 4·56 | 1·11 | 1·48 | 1·46 | 15·10 | 53·85 | 34·88 | 9·70 | ... | ... | 0·90 | 128·85 |
| 1883 | 6·50 | 1 40 | 2·00 | 0·80 | 1·80 | 7·40 | 24·70 | 24·10 | 14·10 | ... | 2·20 | 0·50 | 85·50 |
| Mean | 4·22 | 4·76 | 4·25 | 2·19 | 2·78 | 10·84 | 40·44 | 38·08 | 13·09 | 1·63 | 0·39 | 2·23 | 124·90 |
| 1884 | 0·80 | 3·90 | 2·70 | 0·91 | 0·40 | 11·00 | 32·10 | 47·75 | 14·94 | 0·53 | 0·21 | 0·68 | 115·92 |
| 1885 | 10·42 | 3·99 | 1·46 | 3·31 | 10·00 | 3·65 | 20·21 | 34·09 | 3·18 | 0·06 | ... | 10·74 | 101·11 |
| 1886 | 7·00 | 1·47 | 6·28 | 0·25 | 5·10 | 7·70 | 52·63 | 39·72 | 10·23 | 3·83 | ... | 2·07 | 136·28 |
| Mean | 4·42 | 4·58 | 4·16 | 2·11 | 3·03 | 10·48 | 39·85 | 38·34 | 12·70 | 1·61 | 0·35 | 2·47 | 124·10 |

No. 8. NURPUR.

Latitude N. 32° 18′. Longitude E. 75° 56. Elevation 2,060 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ? | ? | 1·00 | 1·30 | ... | 5·40 | 14·40 | 10·80 | 0·80 | ... | ... | ... | ? |
| 1869 | 2·80 | 2·30 | 14·00 | 0·70 | ... | 1·80 | 15·60 | 11·20 | 22·30 | 1·70 | ... | 0·70 | 73·10 |
| 1870 | 1·90 | 1·00 | 7·90 | ... | ... | ? | ? | 19·50 | 12·90 | 2·20 | ... | 0·90 | ? |
| 1871 | 1·00 | 7·30 | ? | ... | 0·70 | 8·90 | 24·60 | 23·60 | 4·30 | ... | ... | 3·30 | ? |
| 1872 | 5·20 | ? | ? | 0·10 | 3·40 | 9·30 | 35·70 | 22·60 | 10·70 | ... | ... | 1·10 | ? |
| 1873 | 3·90 | 1·10 | ? | 0·10 | 3·60 | 0·20 | 30·50 | 9·10 | 4·60 | ... | 0·20 | 2·10 | ? |
| 1874 | 3·30 | 4·50 | 2·90 | ... | ... | 15·30 | 17·90 | 19·50 | 8·10 | ... | ... | ... | 71·50 |
| 1875 | 1·50 | 7·10 | 1·00 | ... | 1·50 | 3·10 | 26·60 | 26·90 | 26·00 | 4·60 | 0·70 | 0·40 | 99·40 |
| 1876 | 2·50 | 1·70 | 3·70 | 4·60 | 0·90 | 1·60 | 28·50 | 39·60 | 4·90 | 0·80 | ... | ... | 88·80 |
| 1877 | 9·40 | 10·90 | 4·70 | 3·70 | 1·40 | 1·30 | 10·20 | 2·00 | 12·60 | 0·50 | 0·10 | 17·50 | 74·30 |
| 1878 | 4·80 | 10·00 | 0·50 | 3·60 | 6·40 | 4·70 | 9·90 | ? | ? | ? | ... | ... | ? |
| 1879 | 0·30 | 0·20 | 7·50 | ... | 0·30 | 13·70 | 19·30 | 38·30 | 6·50 | ... | ... | 1·20 | 87·30 |
| 1880 | 2·70 | 7·80 | ... | ... | 2·40 | 6·20 | 45·70 | 4·80 | 7·90 | ... | 0·50 | 3·40 | 81·40 |
| 1881 | ... | 3·80 | 6·90 | 2·30 | 1·60 | 5·30 | 26·20 | 27·20 | 3·40 | ... | ... | ... | 76·70 |
| 1882 | 4·40 | 6·10 | 1·00 | 1·60 | 0.60 | 1·20 | 19·40 | 18·00 | 4·50 | ... | ... | 0·30 | 57·10 |
| 1883 | 3·80 | 0·80 | 1·00 | 0·60 | 1·00 | 1·30 | 7·60 | 5·00 | 9·70 | ... | 1·20 | ... | 32·00 |
| Mean | 3·17 | 4·61 | 4·01 | 1·16 | 1·49 | 5·29 | 22·54 | 18·54 | 9·28 | 0·65 | 0·17 | 1·93 | 72·84 |
| 1884 | 0·50 | 2·70 | 2·20 | 0·90 | 0·30 | 3·20 | 14·00 | 24·10 | 9·60 | ... | ... | 0·10 | 57·60 |
| 1885 | 7·60 | 2·90 | 0·40 | 2·50 | 4·40 | 2·30 | 7·10 | 21·00 | 3·40 | ... | ... | 4·10 | 55·70 |
| 1886 | 4·50 | 0·50 | 3·30 | 0·80 | 1·50 | 1·80 | 5·40 | 24·20 | 3·60 | 2·30 | ... | 1·40 | 49·30 |
| Mean | 3·34 | 4·16 | 3·63 | 1·20 | 1·58 | 4·81 | 20·26 | 19·30 | 8·66 | 0·67 | 0·14 | 1·92 | 69·67 |

No. 9. PATHANKOT.

Latitude N. 32° 17′. Longitude E. 75° 42′. Elevation 1,100 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ? | ? | 2·50 | 2·30 | 0·30 | 5·80 | 12·40 | 18·60 | 1·20 | ... | ... | 0·50 | ? |
| 1869 | 3·10 | 1·00 | 9·80 | 0·20 | ... | 1·80 | 8·40 | 11·60 | 12·40 | ... | ? | ... | 48·30? |
| 1870 | 1·20 | 1·30 | 5·80 | 0·80 | ... | ... | 10·50 | 13·50 | 7·30 | 1·20 | ... | 2·10 | 43·70 |
| 1871 | ... | 5·00 | ? | ... | 0·70 | 12·70 | 20·30 | 11·60 | 5·70 | ... | ... | 1·80 | ? |
| 1872 | 5·30 | 3·20 | ? | 1·40 | 1·10 | 3·40 | 19·70 | 9·50 | 12·40 | ... | ... | 0·40 | ? |
| 1873 | 0·80 | 0·20 | ? | 0·30 | 2·40 | ... | 17·00 | 8·30 | 4·50 | 0·20 | 0·10 | 2·10 | ? |
| 1874 | 1·70 | 3·80 | 1·00 | ... | ... | 6·10 | 15·60 | 3·40 | 4·30 | ... | ... | ... | 35·90 |
| 1875 | 0·50 | 3·10 | 0·50 | ... | 1·00 | 1·30 | 10·30 | 22·60 | 20·50 | 2·50 | ... | 1·10 | 63·40 |
| 1876 | 0·90 | 0·30 | 2·40 | 2·50 | 1·30 | 9·50 | 28·30 | 23·30 | 2·70 | 2·00 | ... | ... | 64·20 |
| 1877 | 6·40 | 6·90 | 4·20 | 1·30 | 6·70 | 2·30 | 8·00 | 0·30 | 8·10 | ... | 4·50 | 8·60 | 57·30 |

PATHANKOT—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1878 | 2·40 | 6·30 | ... | 1·50 | 2·80 | ... | 7·20 | 29·60 | 2·10 | 0·40 | ... | ... | 52·30 |
| 1879 | ... | ... | 2·00 | ... | ... | 12·80 | 6·90 | 15·60 | 4·50 | ... | ... | 1·20 | 43·00 |
| 1880 | 1·30 | 3·40 | ... | ... | 0·50 | 4·50 | 27·40 | 1·30 | 5·50 | ... | 0·30 | 0·70 | 44·90 |
| 1881 | ... | 2·30 | 3·70 | 1·00 | 0·20 | 5·00 | 22·50 | 29·30 | 4·30 | ... | ... | ... | 68·30 |
| 1882 | 6·00 | 3·00 | 0·40 | 0·60 | 1·30 | 1·10 | 18·00 | 19·70 | 5·50 | ... | ... | ... | 55·60 |
| 1883 | 4·31 | 0·60 | 0·50 | 0·40 | 0·30 | 2·30 | 8·80 | 11 80 | 5·80 | ... | 0·60 | 0·10 | 35·50 |
| Mean | **2·26** | **2·69** | **2·52** | **0·77** | **1·16** | **3·73** | **15·08** | **14·38** | **6·68** | **0·39** | **0·37** | **1·16** | **51·19** |
| 1884 | 0·50 | 1·50 | 2·90 | ... | ... | 3·90 | 12·30 | 22·00 | 8·70 | ... | ... | ... | 51·80 |
| 1885 | 6·00 | 1·60 | ... | 1·60 | 3·30 | 2·10 | 7·10 | 11·90 | 2·80 | 0·40 | ... | 4·20 | 41·00 |
| 1886 | 3·30 | 0·20 | 7·00 | ... | 1·10 | 2·00 | 13·40 | 32·90 | 8·60 | 0·60 | ... | 4·70 | 73·80 |
| Mean | **2·43** | **2·43** | **2·67** | **0·73** | **1·21** | **3·56** | **14·43** | **15·62** | **6·68** | **0·38** | **0·31** | **1·45** | **51·90** |

No. 10. PALAMPUR.

Latitude N. 32° 7′. Longitude E. 76° 35′. Elevation 4,000 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ? | ? | ? | 0·40 | 2·90 | 12·50 | 10·50 | 36·80 | 5·40 | ... | ... | 1·00 | ? |
| 1869 | 12·10 | 6·30 | 12·30 | 0·50 | ... | 2·70 | 21·90 | 7·70 | 26·00 | 5·20 | 0·30 | 1·60 | 96·60 |
| 1870 | 1·40 | 0·70 | 8·40 | 1·30 | ... | ? | ? | 32·00 | 19·70 | 9·00 | ... | 0·70 | ? |
| 1871 | 0·20 | 8·60 | ? | 0·20 | 3·60 | 24·20 | 38·30 | 33·30 | 8·50 | ... | ... | 0·60 | ? |
| 1872 | 8·30 | ? | ? | 1·40 | 1·50 | 19·90 | 29·20 | 26·80 | 6·70 | 1·90 | ... | 0·80 | ? |
| 1873 | 5·40 | 0·60 | ? | ... | 7·60 | 1·00 | 41·20 | 23·40 | 12·90 | 1·30 | 0·20 | 2·50 | ? |
| 1874 | 5·50 | 6·80 | 5·00 | 0·40 | ... | 12·60 | 45·90 | 31·40 | 12·70 | ... | ... | 0·20 | 120·50 |
| 1875 | 1·50 | 7·80 | 1·20 | 0·70 | 2·60 | 10·70 | 46·60 | 40·80 | 26·40 | 7·40 | 1·60 | 0·80 | 148·10 |
| 1876 | 4·10 | 3·00 | 7·40 | 4·20 | 3·90 | 2·80 | 44·50 | 69·30 | 12·20 | 0·20 | ... | ... | 151·60 |
| 1877 | 16·00 | 14·20 | 11·00 | 14·90 | 4·30 | 3·60 | 6·90 | 13·90 | 14·30 | 3·80 | 3·70 | 8·90 | 115·50 |
| 1878 | 1·00 | 15·20 | 0·60 | 5·70 | 11·30 | 1·70 | 27·80 | ? | ? | ? | ... | ... | ? |
| 1879 | 0·20 | 1·50 | 12·70 | ... | 0·30 | 19·40 | 48·60 | 49·50 | 6·00 | ... | ... | 1·40 | 139·60 |
| 1880 | 4·90 | 6·30 | ... | ... | 5·40 | 13·70 | 63·10 | 22·50 | 8·20 | ... | 0·80 | 5·70 | 130·60 |
| 1881 | 0·40 | 6·10 | 4·60 | 7·50 | ? | 14·20 | 31·50 | 21·90 | 15·00 | 0·60 | ... | ... | ? |
| 1882 | 8·00 | 5·90 | ? | 1·70 | 1·00 | 6·00 | 36·10 | 29·40 | 8·10 | ... | ... | ... | ? |
| 1883 | 4·80 | 1·50 | 3·30 | 1·50 | 2·00 | 9·10 | 30·20 | 16·80 | 6·10 | 0·30 | 1·70 | 0·60 | 77·90 |
| Mean | **4·92** | **6·04** | **6·05** | **2·53** | **3·09** | **10·27** | **34·82** | **30·37** | **12·55** | **1·98** | **0·52** | **1·55** | **114·69** |
| 1884 | 1·30 | 3·40 | 2·90 | 0·10 | 0·60 | 11·60 | 28·20 | 46·00 | 12·40 | 0·20 | 0·40 | ... | 107·10 |
| 1885 | 9·30 | 2·40 | 2·20 | 3·30 | 4·50 | 3·40 | 18·10 | 36·80 | 3·50 | ... | ... | 4·00 | 87·50 |
| 1886 | 2·90 | 2·00 | 5·00 | ... | 3·60 | 3·20 | 36·00 | 31·40 | 9·70 | 0·50 | ... | 2·00 | 96·30 |
| Mean | **4·85** | **5·43** | **5·47** | **2·31** | **3·06** | **9·57** | **33·59** | **31·65** | **11·88** | **1·69** | **0·46** | **1·62** | **111·58** |

No. 11. KANGRA.

Latitude N. 32° 5'. Longitude E. 76° 18'. Elevation 2,494 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ? | ? | 4·20 | 1·10 | 0·70 | 6·40 | 15·00 | 8·50 | 1·50 | ... | ... | 0·70 | ? |
| 1869 | 2·30 | 1·90 | 7·20 | 0·40 | ... | 1·60 | 15·70 | 10·40 | 21·60 | 0·10 | ... | 0·60 | 61·80 |
| 1870 | 2·00 | 0·80 | 5·70 | 1·40 | ... | ? | ? | 19·30 | 14·70 | ... | ... | 0·80 | ? |
| 1871 | 1·70 | 6·30 | ? | ... | 0·80 | 14·60 | 36·10 | 24·00 | 5·40 | ... | ... | 2·30 | ? |
| 1872 | 2·50 | ? | ? | 0·10 | 1·60 | 7·10 | 41·10 | 26·00 | 6·60 | 0·40 | ... | 0·80 | ? |
| 1873 | 5·50 | 1·50 | ? | 0·40 | 1·80 | 2·10 | 32·70 | 13·50 | 7·30 | 0·40 | ... | 1·90 | ? |
| 1874 | 2·80 | 5·00 | 6·80 | 0·30 | 0·20 | 14·20 | 30·50 | 22·80 | 14·70 | ... | ... | ... | 97·30 |
| 1875 | 1·30 | 5·70 | 1·00 | 0·30 | 2·90 | 2·50 | 34·00 | 29·60 | 20·40 | 3·60 | 0·80 | 0·40 | 102·50 |
| 1876 | 1·60 | 1·50 | 3·10 | 2·40 | 0·40 | 0·10 | 25·30 | 40·70 | 7·60 | 0·80 | ... | ... | 83·50 |
| 1877 | 3·80 | 12·40 | 3·40 | 1·90 | 2·00 | 1·70 | 4·60 | 1·40 | 7·40 | 3·80 | 5·00 | 6·90 | 54·30 |
| 1878 | 1·50 | 6·00 | 0·70 | 3·30 | 6·90 | 0·40 | 19·70 | ? | ? | ? | ... | ... | ? |
| 1879 | 0·30 | 0·60 | 5·90 | 0·20 | 0·30 | 13·90 | 20·90 | 30·70 | 5·50 | ... | ... | ... | 78·30 |
| 1880 | 2·40 | 4·70 | ... | ... | 0·70 | 9·10 | 41·50 | 2·90 | 6·50 | ... | 0·60 | 3·80 | 72·20 |
| 1881 | 0·10 | 3·50 | 5·60 | 0·90 | 1·10 | 7·90 | 26·70 | 25·40 | 13·60 | ... | ... | ... | 84·80 |
| 1882 | 4·40 | 4·60 | 0·50 | 0·90 | 1·80 | 1·40 | 31·50 | 22·80 | 5·10 | ... | 0·10 | 1·10 | 74·20 |
| 1883 | 3·00 | 0·60 | 1·00 | 1·20 | 0·10 | 9·00 | 8·90 | 8·00 | 5·90 | ... | 1·40 | 0·20 | 39·30 |
| Mean | 2·35 | 3·94 | 3·47 | 0·93 | 1·33 | 6·13 | 25·61 | 19·07 | 9·59 | 0·61 | 0·49 | 1·22 | 74·74 |
| 1884 | 0·60 | 2·10 | 1·60 | ... | 0·20 | 7·70 | 7·60 | 28·50 | 5·20 | ... | ... | 0·40 | 53·90 |
| 1885 | 6·30 | 2·20 | 0·90 | 1·00 | 3·60 | 3·10 | 11·30 | 30·60 | 1·70 | ... | ... | 5·00 | 65·70 |
| 1886 | 3·80 | 0·90 | 3·70 | 0·10 | 1·50 | 4·00 | 27·40 | 31·60 | 5·50 | 0·10 | ... | 1·10 | 79·70 |
| Mean | 2·55 | 3·55 | 3·21 | 0·84 | 1·40 | 5·93 | 23·92 | 20·93 | 8·68 | 0·51 | 0·42 | 1·37 | 73·31 |

No. 12. HAMIRPUR.

Latitude N. 31° 46'. Longitude E. 76° 36'. Elevation 2,490 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ? | ? | 1·10 | 1·30 | 0·40 | 5·40 | 9·90 | 5·50 | 1·50 | ... | ... | 0·30 | ? |
| 1869 | 2·20 | 3·20 | 7·70 | 0·50 | ... | 0·10 | 17·80 | 18·40 | 15·10 | 1·10 | ... | 1·30 | 67·40 |
| 1870 | 1·10 | 2·00 | 5·10 | 1·40 | ... | ? | ? | 13·30 | 7·20 | 1·70 | ... | 0·40 | ? |
| 1871 | 0·60 | 3·80 | ? | ... | 1·50 | 7·80 | 23·40 | 27·00 | 3·80 | ... | ... | 0·90 | ? |
| 1872 | 6·50 | ? | ? | 1·80 | 0·60 | 8·00 | 14·20 | 10·50 | 6·50 | 0·30 | ... | 1·00 | ? |
| 1873 | 1·80 | 0·10 | ? | 0·30 | 3·80 | 0·20 | 14·20 | 5·10 | 4·70 | 1·00 | ... | 2·00 | ? |
| 1874 | 1·60 | 2·10 | 1·90 | ... | ... | 6·20 | 16·90 | 15·00 | 9·40 | ... | ... | ... | 53·10 |
| 1875 | 0·30 | 7·40 | 0·40 | 0·10 | 1·80 | 0·80 | 16·90 | 26·50 | 14·50 | 1·80 | 0·40 | 0·40 | 71·30 |
| 1876 | 1·70 | 1·60 | 3·50 | 4·00 | 0·90 | 1·90 | 15·50 | 39·50 | 5·80 | 1·50 | ... | ... | 75·90 |
| 1877 | 13·40 | 5·20 | 3·80 | 2·40 | 1·60 | 6·50 | 7·60 | 3·50 | 3·70 | 1·50 | 1·40 | 8·60 | 59·20 |
| 1878 | 2·00 | 4·30 | 0·40 | 5·00 | 5·40 | 0·30 | 16·80 | ? | ? | ? | ... | ... | ? |
| 1879 | 0·10 | 0·10 | 4·00 | 0·30 | 0·10 | 4·40 | 11·20 | 19·30 | 3·40 | ... | ... | 0·80 | 43·70 |

HAMIRPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1880 | 2·40 | 5·00 | ? | ... | 1·90 | 4·00 | 0·30 | 5·90 | 6·80 | ... | 0·80 | 3·30 | ? |
| 1881 | 0·10 | 4·90 | 2·70 | ... | 1·70 | 3·70 | 21·00 | 15·30 | 7·30 | ... | ... | ... | 56·70 |
| 1882 | 3·40 | 3·60 | 1·40 | 0·80 | 0·40 | 2·60 | 14·80 | 15·60 | 9·10 | ... | ... | 0·10 | 51·80 |
| 1883 | 3·60 | 0·20 | 0·90 | 0·70 | 1·70 | 2·30 | 9·20 | 10·50 | 3·40 | 0·10 | 1·20 | ... | 33·80 |
| Mean | **2·72** | **3·11** | **2·74** | **1·18** | **1·36** | **3·61** | **13·98** | **15·39** | **6·81** | **0·60** | **0·24** | **1·19** | **52·93** |
| 1884 | 0·60 | 1·40 | 1·90 | 0·10 | 0·30 | 4·00 | 11·60 | 23·40 | 5·60 | ... | 0·50 | 0·20 | 49·60 |
| 1885 | 6·20 | 1·50 | 0·50 | 1·40 | 3·90 | 4·20 | 10·00 | 14·80 | 1·40 | ... | ... | 4·70 | 48·60 |
| 1886 | 2·90 | 0·90 | 2·70 | ... | 1·40 | 1·00 | 10·80 | 18·10 | 4·50 | 1·40 | ... | 0·60 | 44·30 |
| Mean | **2·81** | **2·78** | **2·53** | **1·07** | **1·44** | **3·52** | **13·45** | **15·96** | **6·32** | **0·58** | **0·23** | **1·29** | **51·98** |

No. 12 A. KAILANG.

Latitude N. 32° 34′. Longitude E. 77° 4′. Elevation 10,087 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1883 | ? | ? | ? | ? | ? | ? | 0·20 | 0·44 | 0·96 | 0·65 | 1·68 | 0·41 | ? |
| 1884 | 1·38 | 3·49 | 4·46 | 2·49 | 0·44 | 2·60 | 0·91 | 1·72 | 0·75 | 0·36 | 0·94 | 0·18 | 19·72 |
| 1885 | 9·21 | 2·68 | 1·76 | 4·02 | 2·04 | 0·88 | 1·34 | 0·84 | 0·88 | 0·40 | ... | 0·80 | 24·85 |
| 1886 | 4·01 | 3·04 | 3·73 | 3·50 | 2·69 | 0·13 | 1·35 | 0·47 | 0·04 | 0·18 | 0·01 | 0·99 | 20·14 |
| Mean | **4·87** | **3·07** | **3·32** | **3·34** | **1·72** | **1·20** | **0·95** | **0·87** | **0·66** | **0·40** | **0·66** | **0·60** | **21·66** |

No. 13. SULTANPUR.

Latitude N. 31° 58′. Longitude E. 77° 7′. Elevation 4,034 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ? | ? | 3·00 | 1·40 | 0·20 | 0·90 | 2·70 | ? | ? | ? | ... | 2·00 | ? |
| 1869 | 8·60 | 11·70 | 14·20 | 4·50 | ... | 2·00 | 10·90 | 3·20 | 4·20 | 0·40 | ... | 2·00 | 61·70 |
| 1870 | 2·90 | 2·90 | 6·30 | 1·20 | 0·50 | ? | ? | 4·60 | 5·60 | 4·20 | ... | 0·50 | ? |
| 1871 | 0·20 | 10·20 | ? | 2·90 | 1·00 | 6·90 | 16·10 | 7·90 | 1·60 | ... | ... | 1·20 | ? |
| 1872 | 8·70 | ? | ? | 1·40 | 0·90 | 1·50 | 10·70 | 3·70 | 1·90 | 0·60 | ... | 0·10 | ? |
| 1873 | 2·90 | 1·30 | ? | 0·30 | 4·00 | 0·60 | 3·20 | 5·20 | 2·10 | 0·60 | 0·10 | 2·80 | ? |
| 1874 | 2 70 | 6·70 | 5·60 | 2·60 | 0·10 | ... | 6·10 | 4·20 | 2·40 | ... | ... | 0·80 | 31·20 |
| 1875 | 2·70 | 10·70 | 1·90 | 1·10 | 2·10 | 0·80 | 7·00 | 8·60 | 11·50 | 0·70 | 1·60 | 2·00 | 50·70 |
| 1876 | 2·40 | 5·20 | 3·30 | 3·30 | 3·30 | 1·10 | 4·10 | 14·50 | ? | ? | ... | ... | ? |
| 1877 | 16·30 | 4·30 | 10·60 | 9·30 | 2·50 | 2·10 | 7·10 | 4·20 | 1·90 | 0·90 | 5·60 | 5·40 | 70·20 |
| 1878 | 3·40 | 12·20 | 2·30 | 13·10 | 10·10 | 3·50 | 8·80 | ? | ? | ? | ... | ... | ? |

SULTANPUR—*continued.*

| Year. | In nes of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1879 | 0·70 | 2·80 | 7·40 | 0·30 | 1·00 | 3·60 | 10·10 | 10·30 | 6·80 | ... | ... | 0·00 | 44·20 |
| 1880 | 6·80 | 6·80 | ... | 9·90 | 1·90 | 2·50 | 16 80 | 2·40 | 1·00 | ... | 1·90 | 4·20 | 54·20 |
| 1881 | 1·30 | 5·60 | 5·70 | 3·00 | 2·70 | 0·90 | 5·60 | 4·50 | 1·00 | ... | ... | ... | 30·30 |
| 1882 | 2·70 | 9·30 | 1·70 | 5·00 | 0·40 | 1·10 | 8·40 | 6·80 | 1·30 | ... | ... | ... | 36·70 |
| 1883 | 4·30 | 1·50 | 1·40 | 2·70 | 2·10 | 0·50 | 2·80 | 6·30 | 0·60 | ... | 5·90 | ... | 28·10 |
| Mean | 4·44 | 6·51 | 4·88 | 3·88 | 2·09 | 1·87 | 8·03 | 6·17 | 3·22 | 0·57 | 0·94 | 1·35 | 43·95 |
| 1884 | 2·10 | 4·70 | 5·90 | 0·30 | 1·00 | 3·40 | 2·90 | 3·90 | 1·80 | 3·10 | 2·10 | 0·10 | 31·30 |
| 1885 | 12·20 | 4·10 | 2·90 | 7·20 | 4·60 | 6·10 | 18·30 | 13·10 | 2·60 | ... | ... | 2·10 | 73·20 |
| 1886 | 5·20 | 4·30 | 7·40 | 2·90 | 5·00 | 3·40 | 7·10 | 5·00 | 0·60 | 0·30 | ... | ... | 41·20 |
| Mean | 4·78 | 6·14 | 4·98 | 3·81 | 2·32 | 2·27 | 8·26 | 6·38 | 2·93 | 0·68 | 0·91 | 1·25 | 44·71 |

No. 14. KILBA.

Latitude N. 31° 30′. Longitude E. 78° 2′. Elevation 8,500 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | P | P | P | 0·50 | 0·70 | 1·40 | 3·70 | 2·10 | 1·20 | ... | 0·50 | 0·30 | P |
| 1883 | 8·10 | 1·30 | 2·90 | 7·57 | 4·90 | ... | 2·40 | 4·00 | 4·70 | 1·00 | 13·00 | 3·60 | 54·07 |
| Mean | P | P | P | 4·04 | 2·80 | 0·70 | 3·05 | 3·35 | 2·95 | 0·50 | 6·75 | 1·95 | P |
| 1884 | 1·93 | 6·75 | 5·39 | 2·47 | 1·92 | 3·20 | 4·90 | 4·30 | 13·00 | 4·20 | 4·50 | 1·30 | 53·86 |
| 1885 | 12·60 | 7·90 | 9·80 | 14·90 | 8·60 | 6·00 | 9·40 | 7·50 | 7·70 | ... | ... | 3·20 | 87·60 |
| 1886 | 17·57 | 8·39 | 9·86 | 4·50 | 10·40 | 2·70 | 5·80 | 2·10 | 0·30 | 0·91 | 0·80 | 1·40 | 64·73 |
| Mean | 10·05 | 6·09 | 6·99 | 5·99 | 5·30 | 2·66 | 5·24 | 4·12 | 5·38 | 1·22 | 3·76 | 1·96 | 58·76 |

No. 15. KOTGARH.

Latitude N. 31° 22′. Longitude E. 77° 35′. Elevation 5,000 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | P | P | 3·50 | 5·70 | 14·30 | 5·60 | 7·70 | 11·40 | 0·70 | 0·20 | 0·10 | 1·00 | P |
| 1869 | 3·10 | 1·60 | 12·50 | 0·20 | 0·60 | 3·50 | 8·20 | 10·10 | 27·80 | 1·40 | ... | 0·30 | 69·30 |
| 1870 | 2·10 | 1·50 | 11·90 | 1·80 | 0·30 | 2·10 | 24·50 | 9·70 | 3·50 | ... | ... | ... | 57·40 |
| 1871 | ... | P | 4·80 | 1·40 | 6·20 | 10·00 | 21·00 | 6·70 | 1·20 | ... | ... | 0·80 | P |
| 1872 | 1·10 | 2·70 | P | 2·40 | 1·10 | 4·10 | 14·90 | 8·40 | 1·80 | ... | ... | 0·70 | P |

KOTGARH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1873 | 1·50 | 1·20 | ? | 0·30 | 4·50 | 1·20 | 7·60 | 10·40 | 11·00 | 0·30 | ... | 1·20 | ? |
| 1874 | ? | 3·70 | 8·50 | ... | 0·80 | 3·60 | 8·60 | 9·50 | 2·70 | ... | ... | ... | 37·40 ? |
| 1875 | 1·40 | 2·10 | 2·20 | ... | 5·40 | 5·00 | 18·80 | 23·00 | 14·40 | 1·30 | ... | 0·30 | 73·90 |
| 1876 | 1·40 | 8·50 | ... | 6·50 | 7·60 | 2·30 | 11·60 | 17·60 | 7·70 | 2·20 | ... | ... | 65·40 |
| 1877 | 7·30 | 0·80 | 18·90 | 23·80 | 27·10 | 10·80 | 10·60 | 9·00 | 6·70 | 3·70 | 3·30 | 9·40 | 131·40 |
| 1878 | 1·80 | 13·90 | 0·50 | 11·70 | 24·60 | 1·90 | 7·80 | 11·30 | 0·90 | 0·20 | ... | ... | 74·60 |
| 1879 | 0·60 | 4·10 | 8·80 | ... | 2·80 | 10·80 | 16·00 | 33·20 | 3·90 | ... | ... | 0·60 | 80·80 |
| 1880 | 0·30 | 0·60 | ... | 0·70 | 7·60 | 8·70 | 24·50 | 12·40 | 6·20 | ... | 2·40 | 4·40 | 67·80 |
| 1881 | ... | 6·10 | 13·60 | 2·90 | 9·10 | 11·80 | 17·40 | 29·60 | 5·10 | ... | ... | ... | 95·60 |
| 1882 | 2·30 | 3·70 | 2·40 | 7·00 | 2·90 | 6·50 | 16·90 | 25·60 | 4·10 | ... | ... | ... | 71·40 |
| 1883 | 0·30 | 0·90 | 2·30 | 6·00 | 4·80 | 5·00 | 10·30 | 9·80 | 3·60 | ... | 4·70 | 0·40 | 48·10 |
| Mean | **1·66** | **3·67** | **6·42** | **4·40** | **7·48** | **5·81** | **14·15** | **14·86** | **6·33** | **0·58** | **0·66** | **1·19** | **67·21** |
| 1884 | 0·20 | 2·30 | 2·10 | 0·10 | 1·80 | 3·80 | 11·20 | 8·70 | 9·90 | 9·20 | ... | 0·40 | 49·70 |
| 1885 | 7·60 | 1·80 | 2·50 | 5·20 | 8·30 | 3·90 | 5·40 | 12·00 | 0·50 | ... | ... | 2·90 | 50·10 |
| 1886 | 6·30 | 0·90 | 4·80 | 0·10 | 5·30 | 4·20 | 18·50 | 2·30 | 1·50 | 2·30 | 1·00 | 1·10 | 48·30 |
| Mean | **2·19** | **3·32** | **5·84** | **3·99** | **7·11** | **5·52** | **13·76** | **13·72** | **5·96** | **1·09** | **0·61** | **1·24** | **64·35** |

No. 16. SIMLA.

Latitude N. 31° 6′. Longitude E. 77° 12′. Elevation 6,953 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | ? | ? | ? | 5·80 | 4·10 | 12·50 | 36·40 | 21·50 | 14·30 | 3·10 | ... | ... | ? |
| 1863 | 3·60 | ... | 2·10 | 1·40 | 3·30 | 11·50 | 24·10 | 9·50 | 3·40 | 9·60 | 0·50 | ... | 69·00 |
| 1864 | 1·50 | 2·10 | 1·40 | 14·70 | 13·30 | 5·70 | 21·10 | 21·30 | 11·00 | 1·10 | ... | 1·70 | 94·90 |
| 1865 | 3·20 | 7·00 | 8·50 | 1·50 | 5·50 | 4·60 | 12·20 | 25·90 | 8·00 | ... | ... | 2·90 | 79·30 |
| 1866 | 4·40 | ... | ... | 4·00 | 0·50 | 12·00 | 17·90 | 24·70 | 3·10 | 0·20 | ... | ... | 66·80 |
| 1867 | ... | 0·30 | 1·70 | 3·70 | 6·20 | 6·60 | 10·80 | 16·70 | 3·60 | 1·90 | ... | 0·60 | 52·10 |
| 1868 | 0·10 | 0·50 | 3·80 | 7·20 | 6·60 | 11·70 | 20·50 | 8·30 | 2·10 | 0·30 | ... | 0·20 | 61·30 |
| 1869 | 3·60 | 0·90 | 5·90 | ... | 0·50 | 4·10 | 16·40 | 13·40 | 11·40 | 0·10 | ... | 1·70 | 58·00 |
| 1870 | 2·00 | 2·32 | 6·49 | 1·61 | 0·67 | 10·21 | 16·90 | 15·88 | 6·56 | 1·67 | 0·04 | 0·10 | 64·45 |
| 1871 | 0·83 | 4·84 | 0·05 | 1·75 | 5·28 | 14·03 | 32·18 | 21·64 | 2·56 | ... | ... | 0·60 | 83·76 |
| 1872 | 6·32 | 3·33 | 2·90 | 1·47 | 2·81 | 9·69 | 17·66 | 20·10 | 6·27 | 0·44 | 0·30 | 0·63 | 71·92 |
| 1873 | 1·93 | 0·69 | 3·63 | 0·28 | 4·97 | 2·16 | 24·15 | 17·85 | 6·14 | 0·80 | 0·24 | 3·31 | 66·15 |
| 1874 | 3·43 | 5·04 | 3·89 | 0·68 | 1·44 | 6·00 | 17·26 | 12·20 | 6·54 | 0·01 | ... | ... | 56·49 |
| 1875 | 1·77 | 7·62 | 0·83 | ... | 5·11 | 8·50 | 25·64 | 27·88 | 12·56 | 0·42 | 0·18 | 0·88 | 91·39 |
| 1876 | 0·67 | 2·63 | 2·44 | 3·81 | 4·64 | 3·45 | 25·12 | 27·82 | 6·29 | 2·43 | 0·01 | 0·02 | 79·33 |
| 1877 | 7·10 | 3·77 | 4·35 | 3·15 | 6·09 | 8·13 | 9·42 | 6·46 | 2·88 | 2·35 | 1·43 | 6·10 | 61·23 |
| 1878 | 2·23 | 6·13 | 0·74 | 7·42 | 7·38 | 2·79 | 14·48 | 15·59 | 2·44 | 0·18 | ... | ... | 59·38 |
| 1879 | 0·50 | 1·35 | 5·27 | 0·38 | 0·14 | 8·98 | 18·36 | 30·67 | 4·81 | 0·07 | ... | 0·50 | 71·03 |

SIMLA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1880 | 2·10 | 5·05 | ... | 0·31 | 8·22 | 15·13 | 32·34 | 14·78 | 8·41 | ... | ... | 1·78 | 88·12 |
| 1881 | 1·00 | 3·35 | 7·78 | 3·12 | 4·38 | 7·50 | 12·48 | 10·67 | 7·16 | ... | ... | ... | 57·44 |
| 1882 | 3·58 | 3·79 | 0·65 | 2·43 | 1·79 | 7·96 | 16·49 | 18·95 | 3·26 | ... | ... | ... | 58·00 |
| 1883 | 4·74 | 0 61 | 2·98 | 0·87 | 10·92 | 7·39 | 14·41 | 17·03 | 5·94 | 0·85 | 5·02 | 0·20 | 70·96 |
| Mean | 2·60 | 2·92 | 3·11 | 2·98 | 4·72 | 8·21 | 19·83 | 18·09 | 6·31 | 1·16 | 0·35 | 0·96 | 71·24 |
| 1884 | 0·84 | 0·77 | 1·94 | 0·54 | 1·52 | 3·86 | 8·75 | 27·31 | 5·00 | 6·30 | 0·23 | 0·81 | 57·87 |
| 1885 | 6·53 | 2·01 | 0·70 | 4·05 | 7·19 | 8·44 | 11·70 | 19·04 | 3·95 | 0·18 | ... | 3·22 | 67·01 |
| 1886 | 6·24 | 1·01 | 4·34 | 0·29 | 4·15 | 3·86 | 25·66 | 8·71 | 2·77 | 2·14 | 0·26 | 1·26 | 60·69 |
| Mean | 2·84 | 2·71 | 3·02 | 2·82 | 4·67 | 7·87 | 19·30 | 18·12 | 6·02 | 1·37 | 0·33 | 1·06 | 70·13 |

No. 17. KASAULI.

Latitude N. 30° 53′. Longitude E. 77° 1.′ Elevation 6,835 feet.

Administration: PUNJAB. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ? | ? | 1·60 | 3·60 | 0·70 | 14·10 | 14·80 | 11·80 | 1·70 | ... | ... | 0·30 | ? |
| 1869 | 4·20 | 2·90 | 12·70 | ... | ... | 2·00 | 25·30 | 17·20 | 22·50 | 0·30 | ... | 2·60 | 89·70 |
| 1870 | 1·50 | 1·80 | 6·60 | 3·40 | 0·80 | 4·70 | 31·00 | 39·70 | 12·50 | 0·80 | ... | ... | 102·80 |
| 1871 | 0·40 | 4·40 | ? | 0·30 | 3·60 | 22·10 | 44·70 | 17·30 | 3·90 | ... | ... | 1·00 | ? |
| 1872 | 5·00 | ... | ? | 0·70 | 2·90 | 10·80 | 25·20 | 42·20 | 19·00 | ... | ... | 0·70 | ? |
| 1873 | 2·00 | ... | ? | ... | 5·00 | 1·50 | 29·80 | 24·30 | 12·90 | 0·20 | ... | 1·00 | ? |
| 1874 | 1·90 | 3·20 | 3·80 | 0·40 | ... | 3·20 | 28·60 | 7·10 | 7·60 | ... | ... | ? | 55·80 ? |
| 1875 | ? | 4·20 | ... | ... | 10·30 | 0·30 | 7·50 | 27·10 | 22·70 | 2·30 | ... | ... | 74·40 ? |
| 1876 | ... | 0·70 | 1·30 | 2·40 | 3·50 | 1·40 | 29·70 | 16·40 | 2·90 | 1·80 | ... | ... | 60·10 |
| 1877 | 3·10 | 1·60 | 15·00 | 2·60 | 2·20 | 6·00 | 4·60 | 2·60 | 3·40 | 3·40 | 1·10 | 4·80 | 50·40 |
| 1878 | 1·90 | 6·30 | 0·70 | 4·90 | 4·40 | 1·60 | 11·40 | 16 00 | 4·80 | ... | ... | 0·70 | 52·70 |
| 1879 | 0·20 | 1·10 | 3·30 | ... | ... | 9·30 | 8·50 | 24·00 | 11·10 | ... | ... | 0·60 | 58·10 |
| 1880 | 1·50 | 3·00 | ... | 0·40 | 2·90 | 6·90 | 21·60 | 3·10 | 7·90 | ... | 0·20 | 1·80 | 49·30 |
| 1881 | 0·40 | 0·80 | 3·90 | 1·70 | 1·30 | 4·90 | 8·10 | 28·00 | 7·70 | ... | ... | ... | 56·80 |
| 1882 | 3·40 | 2·30 | 0·20 | 1·40 | 0·30 | 5·40 | 15·80 | 27·90 | 1·40 | ... | ... | ... | 58·10 |
| 1883 | 2·70 | 1·90 | 1·70 | 1·30 | 4·50 | 1·70 | 2·30 | 6·10 | 11·10 | ... | 3·50 | 0·10 | 36·90 |
| Mean | 2·01 | 2·28 | 3·91 | 1·44 | 2·65 | 5·99 | 19·31 | 19·43 | 9·57 | 0·55 | 0·30 | 0·91 | 68·35 |
| 1884 | 0·50 | 0·50 | 0·40 | ... | 0·10 | 6·10 | 14·90 | 29·20 | 13·10 | 3·30 | 0·30 | ... | 68·40 |
| 1885 | 6·90 | ... | ... | 0·90 | 5·50 | 5·80 | 11·60 | 18·30 | 1·40 | ... | ... | 3·90 | 54·30 |
| 1886 | 3·90 | ... | 2·90 | 2·90 | 4·00 | 2·80 | 14·40 | 5·40 | ... | 0·30 | 0·30 | 0·60 | 37·20 |
| Mean | 2·32 | 1·93 | 3·38 | 1·42 | 2·74 | 5·82 | 18·41 | 19·14 | 8·82 | 0·65 | 0·27 | 1·01 | 65·91 |

No. 18. PESHAWAR.

Latitude N. 34° 2′. Longitude E. 71° 37′. Elevation 1,110 feet.

Administration: PUNJAB. Rainfall Province No. II.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1853 | ... | 1·88 | 3·63 | 0·88 | 0·13 | 0·06 | 4·50 | 3·00 | 0·63 | 0·88 | 0·38 | ... | 15·97 |
| 1854 | 5·06 | 3·76 | 0·58 | 0·77 | 0·73 | 0·42 | 3·63 | 0·64 | 0·60 | ... | 0·10 | ... | 16·29 |
| 1855 | 0·60 | 0·80 | 2·53 | 1·67 | ... | 0·45 | 3·60 | 0·46 | 0·83 | 0·20 | ... | 0·02 | 11·16 |
| 1856 | ... | 0·91 | 0·70 | 0·87 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1857 to 1861 | Not on record. | | | | | | | | | | | | |
| 1862 | ? | ? | ? | 1·60 | ... | 0·50 | 1·30 | 0·90 | ... | ... | 1·60 | ... | ? |
| 1863 | 2·50 | ... | 1·20 | 0·30 | ... | 0·10 | 2·10 | 3·00 | ... | ... | ... | 1·30 | 10·50 |
| 1864 | 1·10 | ... | 0·80 | 7·00 | 1·90 | 0·50 | ... | 0·50 | 0·30 | ... | ... | 0·40 | 12·50 |
| 1865 | 1·70 | 2·90 | 3·10 | 1·90 | ... | ... | 0·70 | 2·10 | 1·10 | ... | 0·50 | 3·20 | 17·20 |
| 1866 | 0·80 | 1·30 | 3·80 | 0·50 | 0·70 | ... | ... | 1·30 | 1·20 | ... | ... | ... | 9·60 |
| 1867 | ... | 0·50 | 0·40 | 2·70 | 0·80 | ... | ... | 3·10 | ... | ... | ... | 0·40 | 7·90 |
| 1868 | 0·30 | 0·20 | 2·30 | 3·60 | 0·40 | ... | 0·50 | ... | 1·00 | ... | ... | 3·40 | 11·70 |
| 1869 | 1·70 | 0·90 | 2·30 | 0·20 | ... | 0·70 | ... | 0·90 | 7·00 | 1·60 | ... | ... | 15·30 |
| 1870 | 1·10 | 0·20 | 1·10 | 0·20 | ... | ... | ... | 3·60 | 0·80 | ... | ... | 0·40 | 7·40 |
| 1871 | 0·10 | 5·00 | 0·40 | 1·40 | ... | 0·70 | 3·10 | ... | ... | ... | ... | 0·60 | 11·30 |
| 1872 | 1·50 | 0·70 | 2·10 | 2·20 | 1·70 | 0·10 | 2·70 | 5·10 | 0·40 | ... | ... | ... | 16·50 |
| 1873 | 1·50 | 1·00 | 1·80 | 0·40 | 2·30 | 0·10 | 1·80 | 0·90 | 0·20 | ... | ... | ... | 10·00 |
| 1874 | 4·80 | ... | 1·40 | 0·60 | ... | ... | 2·40 | 5·40 | 0·50 | ... | ... | ... | 15·10 |
| 1875 | ... | 3·30 | 1·40 | ... | 0·80 | ... | 4·90 | 4·60 | 0·40 | 1·00 | 1·50 | 0·70 | 18·60 |
| 1876 | 2·20 | 0·80 | 2·80 | 1·20 | ... | 0·50 | 2·10 | 2·80 | 0·30 | 1·00 | 1·60 | ... | 15·30 |
| 1877 | 3·54 | 2·64 | 0·98 | 7·24 | 0·17 | 0·38 | ... | ... | 0·11 | 0·64 | 8·50 | 3·67 | 27·87 |
| 1878 | 1·99 | 2·77 | 0·17 | 3·86 | 3·76 | ... | 2·07 | 11·34 | 0·13 | 0·23 | ... | ... | 26·32 |
| 1879 | ... | 0·46 | 2·73 | 0·24 | 0·14 | 0·05 | 0·47 | 0·97 | 0·16 | ... | 0·10 | 0·52 | 5·84 |
| 1880 | ... | 0·37 | ... | 0·11 | 0·52 | 0·47 | 1·65 | ... | 1·39 | ... | ... | 0·50 | 5·01 |
| 1881 | 0·35 | 0·49 | 2·20 | 4·89 | 0·03 | 3·85 | 0·12 | 2·18 | 0·97 | 0·76 | ... | 0·06 | 15·90 |
| 1882 | 1·46 | 0·14 | 1·74 | 2·16 | 0·11 | ... | 3·30 | ... | 2·40 | 0·14 | ... | ... | 11·45 |
| 1883 | 1·98 | 0·74 | 0·89 | 0·53 | 0·16 | 0·10 | 4·57 | 0·07 | 0·24 | 0·07 | 1·93 | 0·17 | 11·45 |
| Mean | 1·37 | 1·27 | 1·64 | 1·81 | 0·57 | 0·36 | 1·82 | 2·11 | 0·83 | 0·26 | 0·65 | 0·61 | 13·30 |
| 1884 | 3·28 | 0·95 | 1·84 | 0·88 | 0·56 | 0·15 | 1·11 | 1·20 | 1·78 | ... | 0·11 | ... | 11·86 |
| 1885 | 4·19 | 0·62 | 2·59 | 7·35 | 3·00 | 0·12 | 0·02 | 1·97 | ... | 0·06 | 0·01 | 0·42 | 20·35 |
| 1886 | 4·01 | 1·16 | 5·75 | 1·33 | 1·55 | ... | 1·50 | ... | 0·20 | 0·09 | 0·22 | 0·48 | 16·29 |
| Mean | 1·63 | 1·23 | 1·83 | 1·95 | 0·70 | 0·33 | 1·72 | 2·00 | 0·81 | 0·24 | 0·59 | 0·58 | 13·61 |

No. 19. KOHAT.

Latitude N. 33° 36′. Longitude E. 71° 29′. Elevation 1,754 feet.

Administration: PUNJAB. Rainfall Province No. II.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1852 | 0·63 | ? | 4·54 | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1853 | Not on record. | | | | | | | | | | | | |
| 1854 | 5·94 | ? | ? | ? | ? | ? | 13·70 | 4·90 | 0·40 | 0·60 | 0·10 | ... | ? |
| 1855 | 2·13 | ... | 1·10 | 3·70 | 0·30 | 1·80 | 10·80 | 2·60 | 3·30 | 0·60 | ... | ... | 26·33 |
| 1856 | 0·20 | 1·05 | 0·50 | 1·00 | 0·70 | 0·10 | 2·10 | ? | ? | ? | ? | ? | ? |
| 1857 to 1861 | Not on record. | | | | | | | | | | | | |
| 1862 | ? | ? | ? | 2·30 | 0·60 | 0·60 | 0·70 | 0·90 | 1·30 | 1·10 | 1·20 | ... | ? |
| 1863 | 2·30 | ... | ... | 0·10 | 0·20 | 4·10 | 5·80 | 2·70 | 0·30 | ... | ... | 0·60 | 16·10 |
| 1864 | 0·30 | 0·20 | ... | 4·30 | 0·50 | 2·00 | ... | 0·80 | 0·80 | ... | ... | 0·20 | 9·10 |
| 1865 | 0·80 | 3·50 | 3·50 | 2·50 | 0·40 | ... | 3·10 | 2·30 | 2·80 | 0·90 | ... | 2·30 | 22·10 |
| 1866 | 0·40 | 0·90 | 1·20 | 0·50 | 5·90 | 0·10 | 1·60 | 2·30 | 3·40 | ... | ... | ... | 16·30 |
| 1867 | ... | 1·40 | 0·80 | 3·00 | 0·90 | ... | ... | 1·90 | 0·10 | ... | ... | 0·70 | 8·80 |
| 1868 | 0·70 | 3·40 | 2·90 | 3·40 | 0·40 | 0·70 | 1·20 | 0·20 | 0·90 | 0·10 | ... | 1·80 | 15·70 |
| 1869 | 0·80 | 1·00 | 10·30 | 1·80 | 0·20 | 0·10 | 3·00 | 3·50 | 6·00 | 1·10 | ... | ... | 27·80 |
| 1870 | 0·80 | ... | 2·10 | 0·50 | ... | 0·90 | 6·30 | 2·60 | 1·40 | ... | ... | ... | 14·60 |
| 1871 | 0·10 | 5·90 | 0·70 | 0·60 | 1·60 | 4·00 | 3·30 | 2·50 | 0·90 | ... | ... | 0·60 | 20·20 |
| 1872 | 2·20 | 1·20 | ... | 2·10 | 3·50 | ... | 10·40 | 3·10 | 0·50 | 0·80 | 0·20 | ... | 24·00 |
| 1873 | 0·50 | 0·60 | 1·10 | 0·10 | 2·00 | ... | 2·20 | 2·70 | 2·00 | 0·30 | ... | 0·60 | 12·10 |
| 1874 | 6·00 | 0·20 | 1·10 | 0·30 | ... | 1·00 | 7·80 | 10·30 | 0·60 | ... | ... | ... | 27·30 |
| 1875 | ... | 3·00 | 1·40 | ... | 3·40 | 0·20 | 3·90 | 4·70 | 9·10 | 1·30 | 1·20 | 0·40 | 28·60 |
| 1876 | 2·00 | 0·60 | 3·70 | 1·50 | 0·20 | 1·20 | 4·80 | 2·10 | 1·20 | 3·00 | 2·10 | 0·90 | 23·30 |
| 1877 | 1·80 | 3·30 | 2·00 | 0·50 | 2·60 | 3·40 | 0·70 | 1·00 | 0·80 | 1·90 | 13·00 | 4·10 | 35·10 |
| 1878 | 1·90 | 1·60 | 0·10 | 2·00 | 2·20 | 0·10 | 7·00 | 8·80 | 0·10 | 2·60 | ... | ... | 26·40 |
| 1879 | ... | 0·40 | 2·30 | ... | ... | 0·80 | 2·40 | 2·80 | 1·50 | ... | ... | 0·60 | 10·80 |
| 1880 | ... | 0·50 | ... | ... | 2·30 | 2·10 | 2·20 | 1·60 | 1·90 | ... | ... | 0·70 | 11·30 |
| 1881 | 0·20 | 0·50 | 3·10 | 3·90 | 0·80 | 1·60 | 1·80 | 2·00 | 0·60 | 0·80 | ... | ... | 15·30 |
| 1882 | 1·30 | 0·05 | 1·10 | 2·20 | 1·20 | 1·10 | 10·20 | 1·50 | 1·60 | ... | ... | ... | 20·25 |
| 1883 | 1·20 | 0·20 | 1·50 | 1·30 | 0·10 | 0·40 | 5·70 | 2·70 | ... | 0·60 | 1·80 | ... | 15·50 |
| Mean | 1·29 | 1·28 | 1·88 | 1·57 | 1·25 | 1·10 | 4·43 | 2·94 | 1·73 | 0·65 | 0·82 | 0·56 | 19·50 |
| 1884 | 1·90 | 1·30 | 2·20 | 0·40 | 0·40 | 1·30 | 3·32 | 2·59 | 2·16 | 0·78 | 0·33 | ... | 16·68 |
| 1885 | 3·26 | 0·75 | 2·76 | 6·48 | 5·80 | 0·21 | 1·60 | 2·88 | 0·58 | ... | 0·10 | 0·52 | 24·94 |
| 1886 | 2·77 | 1·64 | 3·86 | 1·80 | 2·62 | 0·54 | 1·09 | 1·77 | 1·10 | ... | 0·24 | 0·25 | 17·68 |
| Mean | 1·43 | 1·28 | 1·99 | 1·71 | 1·44 | 1·05 | 4·17 | 2·88 | 1·68 | 0·61 | 0·75 | 0·53 | 19·52 |

No. 20. BANNU.

Latitude N. 33° 0′. Longitude E. 70° 39′. Elevation 1,276 feet.

Administration: PUNJAB. Rainfall Province No. II.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1862 | ? | ? | ? | 2·50 | ... | ... | 0·80 | 2·30 | 1·10 | 2·60 | 1·00 | ... | ? |
| 1863 | 1·30 | ... | 0·70 | 0·20 | ... | 4·90 | 5·30 | 10·70 | ... | ... | 0·30 | 0·70 | 24·10 |
| 1864 | 0·40 | ... | 0·50 | 4·20 | 1·90 | 0·50 | ... | 3·00 | 1·40 | ... | ... | 1·10 | 13·00 |
| 1865 | 0·50 | 2·70 | 0·80 | 0·60 | 0·10 | 0·30 | 1·70 | 2·30 | 1·80 | ... | 0·60 | 1·10 | 12·50 |
| 1866 | ... | 2·70 | 2·20 | ... | 0·20 | ... | 0·40 | 5·60 | 1·30 | ... | ... | ... | 12·40 |
| 1867 | 0·20 | 1·20 | 1·30 | 2·50 | 1·60 | ... | 1·10 | 7·30 | ... | ... | ... | ... | 15·20 |
| 1868 | 1·10 | 1·40 | 5·30 | 5·00 | 0·40 | 0·70 | 1·20 | 0·80 | 0·80 | ... | ... | 1·30 | 18·00 |
| 1869 | 1·10 | 0·90 | 1·30 | ... | ... | 0·30 | 3·90 | 1·30 | 0·70 | ... | ... | 0·20 | 9·70 |
| 1870 | ... | ... | 1·10 | 0·20 | ... | 0·20 | 1·50 | 3·10 | ... | ... | ... | ... | 6·10 |
| 1871 | ... | 2·60 | ... | 0·30 | ... | 4·90 | 0·90 | ... | ... | ... | ... | ... | 8·70 |
| 1872 | 0·70 | 0·80 | 0·70 | 2·60 | 1·10 | ... | ... | ... | 0·30 | 0·30 | ... | ... | 6·50 |
| 1873 | 1·70 | 0·40 | 0·70 | ... | 1·70 | ... | 1·50 | 3·40 | ... | ... | ... | ... | 9·40 |
| 1874 | 2·10 | 0·40 | 1·70 | 1·00 | ... | 0·70 | 3·30 | 10·20 | ... | ... | ... | ... | 19·40 |
| 1875 | ... | 3·00 | 1·20 | ... | 0·20 | 0·40 | 3·40 | 2·30 | 3·90 | 0·10 | 0·50 | 1·20 | 16·20 |
| 1876 | 0·60 | 0·60 | 3·00 | 0·40 | 0·30 | 1·00 | 2·70 | 2·10 | 0·80 | 0·30 | 0·20 | 0·20 | 12·20 |
| 1877 | 1·90 | 1·70 | 0·40 | 3·00 | 2·30 | 2·50 | 0·70 | 1·00 | 0·10 | 0·10 | 2·90 | 2·10 | 18·70 |
| 1878 | 1·30 | 1·80 | 0·20 | 3·30 | 3·60 | 0·60 | 0·50 | 3·60 | 0·60 | ... | ... | ... | 15·50 |
| 1879 | ... | 0·20 | 5·90 | ... | 1·80 | 1·00 | 0·90 | 4·70 | ... | ... | ... | 0·10 | 14·60 |
| 1880 | ... | 0·20 | ... | 1·00 | 0·30 | 1·50 | 4·30 | 0·20 | 3·10 | ... | ... | 0·70 | 11·30 |
| 1881 | ... | ... | ... | 3·00 | ... | 2·60 | 1·80 | 2·10 | 1·40 | ... | ... | ... | 10·90 |
| 1882 | ... | ... | 0·70 | 1·20 | 0·30 | 1·20 | 4·80 | 1·00 | 0·10 | ... | ... | ... | 9·30 |
| 1883 | 0·70 | ... | 0·60 | 0·20 | 0·10 | 1·00 | 3·50 | 1·40 | 0·20 | ... | 0·20 | ... | 7·90 |
| Mean | 0·65 | 0·98 | 1·35 | 1·42 | 0·72 | 1·10 | 2·01 | 3·11 | 0·80 | 0·15 | 0·26 | 0·40 | 12·95 |
| 1884 | 2·30 | 0·40 | 0·60 | 0·20 | ... | 1·10 | 2·30 | ... | 2·05 | 0·70 | ... | ... | 9·65 |
| 1885 | 2·60 | 0·01 | 2·10 | 2·00 | 2·50 | 0·10 | 1·10 | 3·60 | ... | 0·30 | ... | ... | 14·31 |
| 1886 | 2·30 | 0·90 | 4·50 | 0·80 | 1·50 | ... | 3·40 | 2·20 | ... | ... | 0·50 | 0·10 | 16·20 |
| Mean | 0·87 | 0·91 | 1·48 | 1·37 | 0·80 | 1·02 | 2·04 | 2·97 | 0·79 | 0·18 | 0·25 | 0·35 | 13·03 |

No. 21. DERA ISMAIL KHAN.

Latitude N. 32° 0′. Longitude E. 71° 5′. Elevation 573 feet.

Administration: PUNJAB. Rainfall Province No. II.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1862 | ? | ? | ? | 1·00 | 0·30 | ... | 0·60 | 1·00 | ... | 0·90 | 0·20 | ... | ? |
| 1863 | 1·00 | ... | ... | ... | ... | 0·80 | 3·20 | 5·60 | ... | ... | ... | 0·40 | 11·00 |
| 1864 | ... | ... | ... | 1·20 | 0·60 | 0·20 | 0·20 | 0·40 | 3·20 | ... | ... | 0·60 | 6·40 |
| 1865 | 0·80 | 2·20 | 0·60 | 1·10 | ... | ... | 0·20 | 0·70 | 0·60 | ... | ... | 0·60 | 6·80 |
| 1866 | 0·20 | 1·50 | 2·20 | ... | 0·10 | 0·20 | ... | 0·40 | ... | 0·30 | ... | ... | 4·90 |

DERA ISMAIL KHAN—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | 0·50 | 0·40 | 0·40 | 0·80 | ... | 0·30 | 1·10 | 0·70 | 0·30 | A. | ... | 0·40 | 4·90 |
| 1868 | 0·40 | 1·10 | 2·10 | 1·00 | ... | ... | 0·80 | 0·30 | ... | ... | ... | 1·20 | 6·90 |
| 1869 | 0·10 | ... | 3·30 | 0·70 | ... | 2·00 | 1·10 | 1·30 | 2·00 | 0·10 | ... | ... | 10·60 |
| 1870 | 0·10 | ... | 0·40 | ... | ... | 4·20 | 0·80 | 2·00 | ... | ... | ... | 0·30 | 7·80 |
| 1871 | ... | 1·70 | ... | ... | 0·50 | 0·90 | 1·40 | ... | ... | ... | ... | 0·10 | 4·60 |
| 1872 | ... | 0·50 | 1·20 | 0·30 | 1·60 | ... | 3·00 | 0·30 | 1·00 | ... | ... | ... | 7·90 |
| 1873 | 0·10 | ... | 0·80 | ... | 1·90 | ... | 2·60 | 2·90 | 0·10 | ... | ... | 0·60 | 9·00 |
| 1874 | 1·10 | 0·70 | 1·60 | 1·80 | ... | ... | 4·40 | 3·00 | ... | ... | ... | ... | 12·60 |
| 1875 | ... | 3·14 | 0·07 | ... | ... | ... | 0·47 | 2·05 | 4·42 | ... | ... | 0·62 | 10·77 |
| 1876 | 0·24 | 0·33 | 1·00 | ... | ... | 1·72 | 1·22 | 2·67 | 0·37 | 1·19 | 0·04 | 0·03 | 8·81 |
| 1877 | 1·92 | 1·64 | 0·02 | 2·03 | 1·01 | 0·45 | 0·37 | 0·08 | 0·18 | 0·06 | 1·78 | 1·99 | 11·53 |
| 1878 | 0·22 | 1·55 | 0·23 | 2·62 | 1·12 | 1·50 | 2·65 | 6·29 | 0·03 | ... | ... | ... | 16·21 |
| 1879 | ... | ... | 1·55 | ... | 0·16 | 0·18 | 2·06 | 1·07 | 0·10 | ... | ... | 0·04 | 5·16 |
| 1880 | 0·04 | 0·03 | ... | ... | ... | ... | 1·27 | 1·80 | 0·41 | ... | ... | 0·83 | 4·38 |
| 1881 | 0·05 | 0·46 | 1·70 | 2·45 | ... | 1·65 | 1·37 | 1·43 | ... | ... | ... | ... | 9·11 |
| 1882 | 0·15 | 0·14 | 0·09 | 2·00 | 0·30 | 0·03 | 8·59 | 3·59 | ... | ... | ... | ... | 14·89 |
| 1883 | 0·21 | 0·03 | 0·19 | 0·41 | 0·58 | 0 05 | 2·02 | 0·99 | 0·26 | 0·71 | 0·81 | ... | 6·26 |
| Mean | **0·34** | **0·73** | **0·83** | **0·79** | **0·37** | **0·64** | **1·79** | **1·75** | **0·59** | **0·15** | **0·13** | **0·35** | **8·46** |
| 1884 | 1·03 | 0·58 | 0·57 | 0·44 | 0·02 | 1·04 | 2·21 | 0·26 | 0·17 | ... | ... | ... | 6·32 |
| 1885 | 0·53 | 0·19 | 0·34 | 0·80 | 2·15 | ... | 1·28 | 1·35 | 0·50 | 0·10 | ... | ... | 7·24 |
| 1886 | 2·11 | 0·08 | 1·99 | ... | 0·26 | 0·12 | 3·30 | 0·03 | ... | ... | 0·22 | 0·29 | 8·40 |
| Mean | **0·45** | **0·68** | **0·85** | **0·75** | **0·42** | **0·61** | **1·85** | **1·61** | **0·55** | **0·13** | **0·12** | **0·32** | **8·34** |

No. 22. DERA GHAZI KHAN.

Latitude N. 30° 4.′ Longitude E. 70° 49.′ Elevation 395 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | ? | ? | ? | 0·90 | ... | 0·10 | 3·60 | 1·00 | 1·60 | 0·70 | 0·10 | ... | ? |
| 1863 | ... | ... | 0·10 | ... | 0·60 | ... | 6·00 | 0·60 | ... | ... | ... | 0·50 | 7·80 |
| 1864 | ... | ... | ... | 2·40 | 2·40 | ... | ... | 0·80 | ... | ... | ... | 0·20 | 5·80 |
| 1865 | 1·10 | 3·80 | 4·50 | ... | ... | ... | ... | 1·00 | ... | ... | 1·00 | 1·00 | 12·40 |
| 1866 | ... | 0·30 | 0·30 | ... | 1·00 | ... | 1·50 | 1·20 | ... | ... | ... | ... | 4·30 |
| 1867 | 0·10 | 0·30 | 0·20 | 2·20 | ... | 0·10 | 0·40 | 1·00 | 1·80 | ... | ... | 1·00 | 7·10 |
| 1668 | 0·40 | 0·50 | 0·20 | 0·40 | ... | ... | 1·20 | ... | ... | 0·10 | ... | 0·70 | 3·50 |
| 1869 | 1·60 | 0·10 | 2·40 | ... | ... | 0·90 | 4·10 | 1·90 | 1·10 | 0·20 | ... | ... | 12·30 |
| 1870 | 0·10 | ... | 0·10 | ... | ... | 1·90 | ... | 0·30 | ... | ... | ... | ... | 2·40 |
| 1871 | ... | ... | 1·00 | ... | ... | 0·70 | 1·50 | ... | ... | ... | ... | ... | 3·20 |
| 1872 | ... | ... | 2·30 | ... | ... | ... | 0·50 | 2·90 | 0·30 | ... | ... | ... | 6·00 |
| 1873 | 1·70 | ... | ... | ... | 2·50 | ... | 1·40 | 1·80 | ... | ... | ... | 1·50 | 8·90 |
| 1874 | 0·30 | ... | 0·60 | ... | ... | ... | 5·20 | 3·10 | 0·40 | ... | ... | ... | 9·60 |
| 1875 | ... | 0·50 | ... | ... | 1·40 | ... | 2·40 | 1·50 | 1·50 | ... | 0·30 | 0·30 | 7·90 |

DERA GHAZI KHAN—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | 0·30 | 0·20 | ... | ... | ... | 1·40 | 3·60 | 3·60 | ... | 0·40 | 1·10 | ... | 10·60 |
| 1877 | 0·80 | 0·40 | 0·70 | 0·40 | 0·40 | 0·10 | ... | 0·50 | 0·90 | ... | 0·20 | 1·30 | 5·70 |
| 1878 | ... | 0·50 | ... | 0·60 | 0·50 | 1·10 | 3·20 | 2·40 | ... | ... | ... | ... | 8·30 |
| 1879 | ... | ... | 1·50 | ... | ... | 2·00 | 0·05 | 0·85 | ... | 0·05 | ... | ... | 4·45 |
| 1880 | ... | ... | ... | ... | ... | 2·70 | 0·35 | 1·00 | ... | ... | ... | 0·30 | 4·35 |
| 1881 | ... | 0·30 | 0·85 | 0·50 | 0·60 | ... | 2·15 | 3·05 | ... | ... | ... | ... | 7·45 |
| 1882 | ... | 0·60 | ... | 0·70 | ... | 0·90 | 9·40 | 0·10 | ... | ... | ... | ... | 11·70 |
| 1883 | 0·50 | ... | 0·05 | ... | ... | 0·60 | 0·10 | ... | ... | ... | ... | ... | 1·25 |
| Mean | 0·33 | 0·36 | 0·70 | 0·37 | 0·43 | 0·57 | 2·12 | 1·30 | 0·35 | 0·07 | 0·12 | 0·31 | 7·03 |
| 1884 | 0·03 | 0·46 | 0·67 | 0·16 | 0·08 | 0·13 | 2·80 | 2·57 | 3·16 | ... | ... | ... | 10·06 |
| 1885 | 1·30 | ... | 0·05 | 0·30 | 3·00 | ... | 0·90 | 0·40 | ... | ... | ... | ... | 5·93 |
| 1886 | 2·10 | ... | 1·40 | ... | 0·50 | ... | 2·10 | ... | ... | ... | 0·40 | ... | 6·50 |
| Mean | 0·43 | 0·33 | 0·71 | 0·34 | 0·52 | 0·51 | 2·10 | 1·26 | 0·43 | 0·06 | 0·12 | 0·27 | 7·08 |

No. 23. MUZAFFARGARH.

Latitude N. 30° 5′. Longitude E. 71° 14′. Elevation 388 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1860 | ? | ? | ? | ? | 1·40 | 1·00 | 1·20 | 0·40 | ... | ... | ... | ... | ? |
| 1861 | 1·30 | ... | ... | ... | ... | 0·30 | 1·10 | 1·20 | 0·10 | ... | ... | 0·30 | 4·30 |
| 1862 | 0·40 | ... | 0·30 | 0·30 | ... | 0·30 | 2·00 | 0·60 | ... | 0·50 | 1·50 | ... | 5·90 |
| 1863 | 0·40 | ... | 0·70 | ... | 0·10 | 0·10 | 3·70 | 2·20 | ... | ... | ... | 0·50 | 7·70 |
| 1864 | ... | ... | 0·10 | 2·90 | 2·40 | ... | 0·50 | ... | 0·20 | ... | ... | 0·20 | 6·30 |
| 1865 | 1·40 | 1·90 | 0·70 | 0·30 | ... | ... | ... | 1·20 | ... | ... | ... | 0·50 | 6·00 |
| 1866 | 0·20 | 0·10 | 0·10 | ... | 0·10 | ... | ... | 0·90 | ... | ... | ... | ... | 1·40 |
| 1867 | 0·10 | ... | 0·10 | 0·40 | 0·50 | ... | ... | 1·10 | 1·80 | ... | ... | 1·00 | 5·00 |
| 1868 | 0·70 | 0·50 | 0·30 | 0·80 | ... | ... | ... | 0·10 | ... | ... | ... | 0·40 | 2·80 |
| 1869 | 0·20 | 0·40 | 2·60 | 0·70 | ... | 1·00 | 3·00 | 0·50 | 1·00 | ... | ... | ... | 9·40 |
| 1870 | ... | ... | 0·60 | ... | ... | 0·70 | ... | 4·10 | ... | ... | ... | 0·10 | 5·50 |
| 1871 | ... | 0·90 | ... | 0·40 | ... | 1·10 | 1·70 | 0·80 | ... | ... | ... | 0·40 | 5·30 |
| 1872 | 0·20 | ... | ... | ... | 0·10 | ... | 1·10 | 3·70 | 1·30 | ... | ... | 1·20 | 7·60 |
| 1873 | ... | ... | ... | ... | 2·10 | ... | 1·70 | 1·20 | ... | ... | ... | 0·80 | 5·80 |
| 1874 | 0·30 | ... | 1·40 | ... | ... | 0·10 | 3·10 | 1·80 | ... | ... | ... | ... | 6·70 |
| 1875 | ... | ... | ... | ... | ... | ... | ... | 0·70 | 4·20 | 0·20 | ... | 0·20 | 5·30 |
| 1876 | ... | ... | ... | ... | ... | 0·60 | 1·80 | 5·30 | ... | 0·90 | 0·10 | ... | 8·70 |
| 1877 | 0·50 | 1·20 | 0·30 | 1·30 | 0·60 | ... | ... | 0·50 | 6·00 | ... | ... | 1·20 | 11·60 |
| 1878 | ... | 0·20 | ... | 0·80 | 0·20 | 0·70 | 1·50 | 6·70 | ... | ... | ... | ... | 10·10 |
| 1879 | ... | ... | 1·10 | ... | ... | 1·40 | ... | ... | ... | 0·70 | ... | ... | 3·20 |
| 1880 | ... | ... | ... | ... | ... | 0·70 | ... | ... | ... | ... | ... | 0·50 | 1·20 |
| 1881 | ... | 0·90 | 0·50 | 0·20 | ... | ... | 0·80 | 2·00 | ... | ... | ... | ... | 4·40 |

MUZAFFARGARH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | 0·10 | 0·20 | 0·10 | 0·05 | ... | ... | 5·35 | 0·50 | 1·50 | ... | ... | ... | 7 80 |
| 1883 | 0·30 | ... | ... | ... | 0·10 | ... | 3·30 | ... | ... | ... | ... | ... | 3·70 |
| Mean | 0·27 | 0·27 | 0·39 | 0·35 | 2·32 | 0·33 | 1·33 | 1·48 | 0·67 | 0·10 | 0·07 | 0·30 | 5·88 |
| 1884 | ... | 0·30 | 0·60 | ... | 0·30 | 1·90 | 1·90 | 1·10 | 1·20 | ... | ... | ... | 7·30 |
| 1885 | 1·10 | ... | 0·60 | 1·70 | 2·30 | ... | 0·20 | 2·80 | ... | ... | ... | ... | 8·70 |
| 1886 | 1·20 | ... | 0·90 | ... | 0·90 | 0·20 | 1·00 | ... | ... | ... | 0·70 | ... | 4·90 |
| Mean | 0·32 | 0·25 | 0·42 | 0·38 | 0·41 | 0·37 | 1·29 | 1·46 | 0·64 | 0·08 | 0·08 | 0·27 | 5·97 |

No. 24. MOOLTAN.

Latitude N. 30° 10′. Longitude E. 71° 33′. Elevation 420 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | 0·49 | 0·04 | 0·25 | 0·01 | 0·01 | 0·23 | 1·46 | 0·34 | 2·34 | 2·48 | 0·27 | ... | 7·92 |
| 1863 | 0·51 | 0·02 | 0·34 | 0·45 | 1·05 | 1·29 | 6·06 | 3·18 | ... | ... | ... | 0·86 | 13·76 |
| 1864 | 0·14 | ... | ... | 1·47 | 1·60 | 0·48 | 0·73 | 1·69 | ... | ... | ... | 0·18 | 6·29 |
| 1865 | 0·75 | 2·32 | 0·86 | 0·16 | ... | ... | 0·20 | 0·64 | 0·15 | ... | ... | 0·56 | 5·64 |
| 1866 | ... | 0·20 | 0·10 | ... | 0·70 | ... | 0·30 | 1·10 | ... | 0·10 | ... | ... | 2·50 |
| 1867 | ... | ... | 0·30 | 1·00 | 0·80 | ... | 2·10 | 0·50 | 0·60 | ... | ... | 1·10 | 6·40 |
| 1868 | 0·80 | 0·50 | 0·50 | 2·90 | 0·10 | ... | 0·10 | ... | ... | ... | ... | 0·20 | 5·10 |
| 1869 | 1·10 | 0·10 | 4·00 | 0·30 | ... | 0·60 | 2·70 | 2·80 | 1·90 | ... | ... | ... | 13·50 |
| 1870 | ... | ... | 0·80 | ... | ... | 0·20 | ... | 1·00 | ... | ... | ... | ... | 2·00 |
| 1871 | ... | 0·20 | ... | 0·10 | ... | ... | 1·20 | ... | ... | ... | ... | 0·40 | 1·90 |
| 1872 | 0·10 | ... | ... | 0·20 | ... | ... | 3·00 | 1·50 | 0·70 | ... | ... | ... | 5·50 |
| 1873 | 0·50 | ... | ... | ... | 1·90 | ... | 1·90 | 2·20 | ... | ... | ... | 0·50 | 7·00 |
| 1874 | 0·60 | ... | 0·60 | ... | ... | 0·20 | 7·70 | 0·60 | ... | ... | ... | ... | 9·70 |
| 1875 | ... | 0·23 | ... | ... | 0·17 | ... | 0·89 | 0·81 | 1·57 | 0·10 | 0·22 | 0·16 | 4·15 |
| 1876 | 0·23 | 0·35 | 0·14 | ... | ... | 1·19 | 3·30 | 1·83 | ... | ... | 0·39 | ... | 7·43 |
| 1877 | 0·28 | 0·60 | 0·16 | 1·07 | 1·40 | 0·06 | ... | 1·11 | 9·15 | ... | 0·22 | 1·43 | 15·48 |
| 1878 | 0·06 | 0·58 | ... | 0·26 | 0·83 | 0·33 | 3·75 | 4·05 | ... | ... | ... | ... | 9·86 |
| 1879 | ... | ... | 1·73 | ... | ... | 1·32 | 0·81 | 1·03 | ... | ... | ... | ... | 4·89 |
| 1880 | ... | 0·46 | ... | ... | ... | 0·97 | 2·25 | 0·20 | 0·62 | ... | ... | 0·57 | 5·07 |
| 1881 | ... | 0·50 | 0·70 | 0·06 | 0·03 | 0·03 | 1·25 | 1·70 | ... | ... | ... | ... | 4·27 |
| 1882 | 0·44 | 0·47 | ... | 0·07 | ... | 0·35 | 6·68 | 0·69 | 0·11 | ... | ... | ... | 8·81 |
| 1883 | 1·00 | ... | 0·18 | ... | 1·59 | ... | 3·56 | ... | 2·03 | ... | ... | ... | 8·36 |
| Mean | 0·32 | 0·30 | 0·48 | 0·37 | 0·46 | 0·33 | 2·27 | 1·23 | 0·87 | 0·12 | 0·05 | 0·27 | 7·07 |
| 1884 | 0·11 | 0·28 | 0·47 | ... | 0·18 | 1·34 | 2·55 | 1·31 | 0·42 | ... | ... | ... | 6·66 |
| 1885 | 1·22 | ... | 0·11 | 0·52 | 1·54 | 1·01 | ... | 3·12 | ... | ... | ... | 0·24 | 7·76 |
| 1886 | 1·44 | ... | 1·42 | ... | 0·06 | 0·04 | 3·02 | ... | ... | ... | 0·58 | ... | 6·56 |
| Mean | 0·39 | 0·27 | 0·51 | 0·34 | 0·48 | 0·39 | 2·22 | 1·26 | 0·78 | 0·11 | 0·07 | 0·25 | 7·07 |

No. 25. RAWALPINDI.

Latitude N. 33° 38′. Longitude E. 73° 5′. Elevation 1,652 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1852 | 1·38 | 4·25 | 5·50 | 5·88 | 1·50 | 1·13 | 2·38 | 10·13 | P | ... | 1·38 | ... | P |
| 1853 | 1·31 | 1·25 | 1·50 | 4·00 | 3·75 | P | 16·00 | 4·10 | 1·50 | P | P | P* | P |
| 1854 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | P | P | P | P | 2·40 | 0·10 | 4·10 | 6·40 | 1·60 | ... | ... | ... | P |
| 1861 | 3·00 | 0·60 | 1·00 | ... | 0·20 | 1·30 | 11·50 | 9·30 | 2·40 | 0·70 | ... | 1·90 | 31·90 |
| 1862 | 1·40 | 0·40 | 2·30 | 2·20 | 0·30 | 0·70 | 10·30 | 6·10 | 2·00 | 0·80 | 10·00 | ... | 36·50 |
| 1863 | 3·70 | 0·20 | 1·40 | 1·30 | ... | 3·90 | 13·30 | 10·80 | 1·10 | ... | 0·30 | 1·70 | 37·70 |
| 1864 | 0·90 | 2·70 | 0·60 | 4·80 | 4·30 | 1·10 | 6·90 | 11·40 | 3·40 | 0·50 | ... | 2·30 | 38·90 |
| 1865 | 2·70 | 2·80 | 2·00 | 2·00 | 0·40 | 0·40 | 2·40 | 7·00 | 6·10 | ... | 0·70 | 2·30 | 28·80 |
| 1866 | 1·80 | 0·50 | 3·60 | 3·50 | 0·40 | 1·00 | 4·20 | 7·30 | 1·80 | ... | ... | ... | 24·10 |
| 1867 | 1·40 | 2·30 | 0·20 | 4·50 | 1·20 | 0·10 | 2·20 | 7·60 | 1·70 | ... | ... | 0·10 | 21·30 |
| 1868 | 0·60 | 1·10 | 1·30 | 3·60 | 1·80 | 0·10 | 9·10 | 2·60 | 0·90 | 0·30 | ... | 2·00 | 23·40 |
| 1869 | 3·70 | 0·80 | 12·10 | 0·50 | ... | 1·10 | 4·90 | 0·30 | 4·00 | 0·10 | ... | 0·30 | 27·80 |
| 1870 | 0·10 | 0·40 | 0·90 | ... | 0·30 | 5·10 | 10·00 | 9·90 | 1·60 | 0·80 | ... | 0·90 | 30·00 |
| 1871 | ... | 5·60 | 0·30 | ... | 0·30 | 4·90 | 7·10 | 3·70 | 5·10 | ... | ... | 1·50 | 28·50 |
| 1872 | 5·40 | 1·00 | 3·00 | 2·50 | 2·10 | 0·80 | 8·40 | 2·50 | 4·20 | ... | ... | 0·40 | 30·30 |
| 1873 | 1·80 | 2·00 | 1·40 | 0·10 | 2·30 | ... | 9·60 | 7·40 | 1·30 | 2·00 | 0·40 | 0·40 | 28·70 |
| 1874 | 3·80 | 0·40 | 3·70 | 2·10 | 0·90 | 5·70 | 12·10 | 7·40 | 5·00 | ... | ... | ... | 41·10 |
| 1875 | ... | 3·07 | 1·12 | 0·24 | 1·32 | 0·96 | 9·19 | 13·78 | 9·53 | 2·08 | 0·71 | 4·02 | 46·02 |
| 1876 | 4·30 | 2·35 | 3·30 | 2·75 | 1·62 | 1·15 | 12·51 | 4·89 | 1·60 | 1·03 | 1·83 | 0·30 | 37·63 |
| 1877 | 5·41 | 5·79 | 1·26 | 4·51 | 1·59 | 2·02 | 3·05 | ... | 1·81 | 2·86 | 4·93 | 6·86 | 40·09 |
| 1878 | 0·97 | 4·71 | 0·37 | 7·68 | 5·67 | 1·10 | 8·12 | 6·60 | 1·95 | 0·86 | ... | ... | 38·03 |
| 1879 | ... | 0·22 | 2·29 | 0·38 | 0·32 | 3·65 | 7·05 | 15·60 | 3·06 | ... | ... | 1·25 | 33·82 |
| 1880 | 0·76 | 2·51 | ... | 0·10 | 1·07 | 2·30 | 6·46 | 3·86 | 2·62 | 0·01 | 0·01 | 0·63 | 20·33 |
| 1881 | 0·10 | 3·34 | 1·98 | 3·65 | 0·35 | 1·29 | 4·50 | 9·43 | 1·67 | 0·40 | ... | 0·39 | 27·10 |
| 1882 | 3·11 | 1·03 | 0·98 | 2·51 | 0·30 | 2·50 | 7·62 | 7·38 | 10·50 | 0·11 | ... | 0·37 | 36·41 |
| 1883 | 6·44 | 0·74 | 2·03 | 0·38 | 1·44 | 0·34 | 5·41 | 4·05 | 6·22 | 0·74 | 3·42 | 0·45 | 31·66 |
| Mean | 2·16 | 2·00 | 1·73 | 2·37 | 1·38 | 1·71 | 7·63 | 6·90 | 3·31 | 0·53 | 0·95 | 1·12 | 31·79 |
| 1884 | 2·00 | 2·40 | 4·36 | 1·74 | 0·38 | 1·98 | 7·01 | 10·36 | 4·72 | 1·29 | 0·02 | ... | 36·26 |
| 1885 | 7·54 | 1·16 | 1·34 | 3·84 | 8·24 | 1·33 | 3·01 | 12·83 | 1·14 | 0·21 | ... | 1·45 | 42·09 |
| 1886 | 3·74 | 1·60 | 5·01 | 0·84 | 2·03 | 0·67 | 6·01 | 8·73 | 1·52 | 0·80 | 0·09 | 2·58 | 33·62 |
| Mean | 2·41 | 1·97 | 1·92 | 2·34 | 1·60 | 1·67 | 7·39 | 7·29 | 3·22 | 0·56 | 0·85 | 1·15 | 32·37 |

No. 26. JHELUM.

Latitude N. 32° 55′. Longitude E. 73° 47′. Elevation 827 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | ? | ? | ? | ? | 0·20 | 2·00 | 10·70 | 7·10 | 1·80 | ... | ... | 1·50 | ? |
| 1862 | 1·80 | 0·70 | 1·30 | 1·20 | 0·30 | 0·90 | 8·60 | 3·60 | 1·80 | 3·80 | 0·40 | ... | 24·40 |
| 1863 | 2·90 | ... | 1·80 | 1·20 | 0·10 | 1·60 | 18·80 | 3·30 | ... | ... | 0·10 | 0·60 | 30·40 |
| 1864 | 0·10 | 0·90 | 0·90 | 3·10 | 1·10 | 0·90 | 12·70 | 14·00 | 0·80 | ... | ... | 1·00 | 35·50 |
| 1865 | 2·80 | 5·70 | 5·70 | 3·00 | ... | 0·60 | 4·80 | 12·40 | 8·30 | ... | ... | 4·10 | 47·40 |
| 1866 | 0·80 | 0·60 | 1·90 | 0·80 | 0·40 | 7·30 | 15·50 | 2·40 | 0·80 | ... | ... | ... | 30·50 |
| 1867 | 0·40 | 0·60 | 1·30 | 1·70 | 1·30 | 0·50 | 2·90 | 5·50 | 2·20 | ... | ... | 0·20 | 16·60 |
| 1868 | 1·00 | 3·00 | 0·90 | 1·50 | 0·30 | 1·10 | 6·10 | 3·30 | 0·60 | ... | ... | 0·30 | 18·10 |
| 1869 | 1·10 | 0·20 | 4·30 | ... | ... | 3·40 | 4·40 | 3·10 | 1·10 | 0·60 | ... | ... | 18·20 |
| 1870 | ... | ... | 1·90 | 0·40 | ... | 2·80 | 4·90 | 7·10 | 2·60 | 0·10 | ... | ... | 19·80 |
| 1871 | ... | 2·40 | ... | ... | ... | 3·30 | 5·10 | 1·10 | 0·70 | ... | ... | 0·70 | 13·30 |
| 1872 | 1·70 | 2·20 | 1·50 | 1·30 | 0·90 | 0·90 | 5·90 | 1·20 | 1·20 | ... | ... | 1·00 | 17·80 |
| 1873. | 0·20 | 0·10 | 0·50 | ... | 1·40 | ... | 3·10 | 6·30 | 1·60 | 0·20 | ... | 0·70 | 14·10 |
| 1874 | 1·90 | 0·10 | 2·20 | 0·10 | 0·20 | 2·30 | 5·50 | 4·20 | 3·20 | ... | ... | ... | 19·70 |
| 1875 | 0·80 | 0·60 | 0·50 | ... | 0·70 | 0·20 | 6·70 | 11·10 | 5·80 | 0·70 | 0·50 | 0·70 | 28·30 |
| 1876 | 0·70 | 1·40 | 1·60 | 1·60 | 1·70 | 1·80 | 4·70 | 3·90 | 0·80 | 1·40 | 0·60 | ... | 20·20 |
| 1877 | 9·20 | 5·30 | 0·60 | 2·00 | 0·50 | 1·30 | 2·80 | 0·80 | 0·90 | 3·80 | 2·90 | 6·10 | 36·20 |
| 1878 | 0·50 | 1·80 | ... | 2·20 | 1·50 | 1·00 | 13·00 | 3·50 | 2·10 | 0·70 | ... | ... | 26·30 |
| 1879 | ... | ... | 2·60 | 0·10 | ... | 7·50 | 6·10 | 10·80 | 1·60 | ... | ... | 0·70 | 29·40 |
| 1880 | 0·20 | 1·10 | ... | 0·40 | 0·90 | 0·60 | 7·00 | 2·80 | 0·90 | ... | ... | 0·60 | 14·50 |
| 1881 | ... | 0·90 | 2·60 | 1·40 | 0·50 | 0·70 | 2·20 | 5·00 | 2·70 | ... | ... | 0·20 | 17·10 |
| 1882 | 2·60 | 0·40 | 0·30 | 0·30 | ... | 1·10 | 11·60 | 5·70 | 8·30 | ... | ... | 0·10 | 30·40 |
| 1883 | 3·90 | 0·20 | 2·50 | 0·90 | 2·60 | 3·80 | 6·80 | 1·80 | 3·20 | ... | 4·30 | 0·20 | 30·20 |
| Mean | 1·48 | 1·28 | 1·59 | 1·05 | 0·63 | 1·98 | 7·39 | 5·26 | 2·30 | 0·49 | 0·38 | 0·81 | 24·64 |
| 1884 | 1·00 | 1·10 | 2·00 | ... | 0·40 | 0·80 | 3·45 | 7·10 | 5·80 | 1·90 | ... | ... | 23·55 |
| 1885 | 3·70 | 0·60 | 0·20 | 2·90 | 5·20 | ... | 2·10 | 7·30 | 2·50 | ... | ... | 1·30 | 25·80 |
| 1886 | 3·20 | 0·40 | 4·40 | 0·90 | 1·40 | 4·50 | 6·30 | 5·90 | 0·10 | 2·00 | ... | 1·23 | 30·33 |
| Mean | 1·62 | 1·21 | 1·66 | 1·08 | 0·83 | 1·96 | 6·99 | 5·43 | 23·6 | 0·58 | 0·34 | 0·82 | 24 88 |

No. 27. SHAHPUR.

Latitude N. 32° 16′. Longitude E. 72° 31′. Elevation 647 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1854 | ? | 1·40 | 0·50 | ... | 1·30 | 1·70 | 2·20 | 1·90 | 1·10 | ... | 0·60 | ... | ? |
| 1855 | 1·50 | ? | ? | ? | 0·10 | 0·70 | 6·50 | 2·90 | 2·80 | 0·10 | ... | ... | ? |
| 1856 | 0·10 | 0·20 | 3·10 | 0·80 | 0·30 | 1·00 | 4·40 | 12 60 | 1·40 | ... | ... | ... | 23·10 |
| 1857 | 2·00 | 1·60 | ... | 1·80 | 0·30 | 0·60 | 4·30 | 4·60 | 1·20 | 0·40 | ... | ... | 16 80 |
| 1858 | 1·60 | 0·80 | 0·10 | 0·10 | ... | 0·70 | 6·30 | 0·50 | 0·50 | ... | ... | 0·30 | 10·90 |

SHAHPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1859 | 0·90 | 0·80 | 1·00 | 1·30 | 0·40 | 1·00 | 1·50 | 2·10 | 1·00 | ... | 0·10 | 0·40 | 10·50 |
| 1860 | 0·60 | 1·00 | 0·60 | ... | 1·00 | 1·30 | 1·50 | 3·70 | 0·80 | ... | ... | ... | 10·50 |
| 1861 | 1·20 | ... | 1·50 | ... | 0·50 | 0·30 | 4·00 | 6·00 | ... | ... | ... | 2·00 | 15·50 |
| 1862 | 1·00 | ... | 2·00 | 1·00 | ... | 2·90 | 6·30 | 5·10 | 5·00 | 0·90 | 0·40 | ... | 24·60 |
| 1863 | 1·60 | 0·10 | 0·90 | ... | ... | 2·10 | 7·00 | 4·10 | ... | ... | 0·10 | 0·50 | 16·40 |
| 1864 | 0·20 | 0·50 | ... | 2·20 | 1·80 | 0·80 | 1·60 | 2·30 | 1·20 | ... | ... | 1·00 | 11·60 |
| 1865 | 2·80 | 3·30 | 2·60 | 0·10 | 0·10 | ... | 3·30 | 4·40 | 2·00 | ... | 0·10 | 1·40 | 19·40 |
| 1866 | 1·40 | 1·30 | 0·30 | 0·30 | ... | 0·10 | 4·60 | 1·90 | 1·00 | ... | ... | ... | 10·90 |
| 1867 | 0·40 | 0·60 | 1·50 | 1·10 | 1·40 | 0·50 | 1·50 | 4·50 | 1·30 | ... | ... | 0·10 | 12·90 |
| 1868 | ... | 2·40 | 0·60 | ... | ... | 0·90 | 1·30 | 1·10 | 0·60 | ... | ... | ... | 6·90 |
| 1869 | ... | ... | ... | ... | ... | ... | 1·60 | 1·60 | 1·00 | 0·10 | ... | 0·20 | 4·50 |
| 1870 | ... | ... | 2·20 | 0·50 | ... | 1·50 | 1·10 | 3·30 | ... | ... | ... | 1·40 | 10·00 |
| 1871 | ... | 1·40 | ... | ... | 0·50 | 4·40 | 3·00 | 2·50 | ... | ... | ... | 0·50 | 12·30 |
| 1872 | 0·40 | ... | 1·40 | 1·20 | 2·50 | 4·00 | 7·70 | 5·40 | 2·30 | ... | ... | 0·20 | 25·10 |
| 1873 | 1·30 | 0·20 | 0·30 | ... | 2·20 | 0·50 | 1·70 | 4·10 | 4·00 | 1·30 | ... | 0·80 | 16·40 |
| 1874 | 1·20 | ... | 0·40 | 0·70 | ... | 1·50 | 5·20 | 3·40 | 2·20 | ... | ... | ... | 14·60 |
| 1875 | ... | 1·70 | 0·10 | ... | 0·60 | 0·60 | 1·90 | 0·90 | 3·70 | ... | 0·80 | 0·70 | 11·00 |
| 1876 | 0·20 | 0·90 | 1·60 | 1·20 | 0·90 | 1·80 | 3·10 | 3·90 | 0·20 | 1·40 | 0·80 | ... | 16·00 |
| 1877 | 1·00 | 3·20 | 1·00 | 2·20 | 0·30 | 1·70 | 0·10 | 0·50 | ... | ... | 3·10 | 2·30 | 15·40 |
| 1878 | 0·40 | 9·30 | 0·30 | 0·90 | 3·50 | ... | 3·70 | 4·60 | 6·60 | ... | ... | ... | 29·30 |
| 1879 | ... | ... | 2·10 | ... | ... | 0·90 | 0·80 | 6·60 | 0·20 | ... | ... | ... | 10·60 |
| 1880 | ... | 1·50 | ... | ... | 0·30 | 0·50 | 2·50 | 3·20 | 1·90 | ... | 0·20 | 0·60 | 10·70 |
| 1881 | ... | ... | 1·80 | 1·00 | 0·20 | 4·40 | 3·70 | 2·40 | ... | 1·10 | ... | ... | 14·60 |
| 1882 | 1·40 | ... | ... | 0·90 | 0·50 | ... | 10·50 | 1·60 | 9·00 | ... | ... | ... | 23·90 |
| 1883 | 2·70 | ... | ... | ... | 0·30 | ... | 9·10 | 2·20 | ... | ... | 1·40 | ... | 15·70 |
| Mean | **0·80** | **1·11** | **0·89** | **0·60** | **0·63** | **1·21** | **3·73** | **3·46** | **1·70** | **0·18** | **0·25** | **0·41** | **14·97** |
| 1884 | 0·20 | 0·50 | 0·70 | 1·20 | ... | 0·80 | 3·00 | 0·70 | 3·80 | ... | ... | ... | 10·90 |
| 1885 | 2·10 | 0·70 | ... | 2·10 | 2·90 | ... | 2·10 | 1·50 | 1·80 | ... | ... | ... | 13·20 |
| 1886 | 1·20 | 0·50 | 3·30 | ... | 1·00 | 0·10 | 7·90 | 0·60 | 2·10 | ... | ... | ... | 16·70 |
| Mean | **0·83** | **1·06** | **0·94** | **0·64** | **0·69** | **1·13** | **3·79** | **3·23** | **1·78** | **0·16** | **0·23** | **0·38** | **14·86** |

No. 28. JHANG.

Latitude N. 31° 16′. Longitude E. 72° 22′. Elevation 570 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | P | P | P | ... | 1·20 | 0·90 | 12·40 | 3·10 | 0·30 | 4·10 | 0·30 | ... | P |
| 1863 | 1·50 | ... | ... | ... | 0·30 | 5·60 | 10·00 | 2·10 | ... | ... | ... | 0·30 | 19·80 |
| 1864 | ... | ... | 0·20 | 1·50 | 0·30 | 1·00 | 0·20 | 4·30 | 2·90 | ... | ... | 1·70 | 12·10 |
| 1865 | 0·10 | 1·10 | 0·40 | ... | ... | 1·40 | 1·80 | 3·80 | 1·20 | ... | ... | 1·20 | 11·00 |
| 1866 | 0·80 | 1·40 | 0·10 | ... | ... | ... | 2·70 | 1·80 | 0·30 | ... | ... | ... | 7·10 |
| 1867 | 0·10 | 0·40 | 1·90 | 1·40 | 0·40 | 0·90 | 4·10 | 3·20 | 1·10 | 0·10 | ... | 0·10 | 13·70 |

JHANG—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | 0·90 | 0·70 | 3·10 | 1·40 | 0·50 | 0·10 | 2·80 | 3·10 | ... | ... | ... | 0·40 | 13·00 |
| 1869 | 0·40 | 0·30 | 5·50 | 1·40 | ... | 0·70 | 6·50 | 0·40 | 1·60 | ... | ... | ... | 16·80 |
| 1870 | ... | ... | 0·10 | ... | ... | 1·20 | ... | 1·80 | ... | ... | ... | 0·30 | 3·40 |
| 1871 | ... | 1·70 | ... | 0·10 | 0·10 | 0·60 | 2·20 | ... | ... | ... | ... | 1·00 | 5·70 |
| 1872 | 0·30 | ... | 1·50 | 0·10 | 0·90 | 0·10 | 2·50 | 3·00 | 2·40 | ... | ... | ... | 10·80 |
| 1873 | 0·50 | ... | 0·60 | ... | 1·40 | ... | 10·40 | 2·60 | ... | 0·50 | ... | 0·80 | 16·80 |
| 1874 | 0·70 | 0·20 | 0·40 | 0·50 | ... | 0·50 | 4·10 | 2·00 | 0·20 | ... | ... | ... | 8·60 |
| 1875 | ... | 0·20 | ... | ... | ... | ... | 1·50 | 3·10 | 3·40 | ... | ... | 0·10 | 8·30 |
| 1876 | 0·10 | ... | 1·20 | 0·10 | 0·10 | 0·20 | 1·40 | 1·70 | ... | ... | 0·40 | ... | 5·20 |
| 1877 | 0·30 | 0·50 | 1·10 | 2·80 | 3·10 | 0·80 | 3·40 | ... | 1·50 | ... | 0·50 | 2·00 | 16·00 |
| 1878 | 0·90 | 1·00 | ... | 0·70 | 1·60 | ... | 2·40 | 6·50 | 0·30 | ... | ... | ... | 13·40 |
| 1879 | ... | ... | 0·90 | ... | ... | 1·40 | 1·00 | 0·60 | 0·30 | ... | ... | ... | 4·20 |
| 1880 | ... | 0·90 | ... | ... | ... | 1·70 | 1·80 | ... | 0·10 | ... | ... | 0·20 | 4·70 |
| 1881 | ... | 0·30 | 0·30 | 0·10 | ... | 1·90 | 3·70 | 2·10 | ... | ... | ... | ... | 8·40 |
| 1882 | 0·90 | 0·50 | 0·20 | 0·90 | ... | 0·70 | 9·90 | 0·30 | 1·80 | ... | ... | ... | 15·20 |
| 1883 | 1·00 | ... | ... | ... | 0·90 | 0·60 | 2·50 | ... | ... | ... | ... | ... | 5·60 |
| Mean | 0·40 | 0·44 | 0·83 | 0·50 | 0·49 | 0·92 | 3·97 | 2·07 | 0·79 | 0·21 | 0·05 | 0·37 | 11·04 |
| 1884 | 0·10 | 0·50 | 0·70 | ... | ... | 2·40 | 3·70 | ... | 0·70 | ... | ... | ... | 8·10 |
| 1885 | 1·60 | 0·20 | 0·50 | 0·10 | 1·90 | 0·70 | 0·90 | 2·00 | ... | ... | ... | 0·30 | 8·20 |
| 1886 | 1·30 | ... | 1·10 | ... | ... | 1·80 | 2·40 | ... | ... | ... | ... | ... | 6·60 |
| Mean | 0·48 | 0·41 | 0 83 | 0·44 | 0·51 | 1·01 | 3·77 | 1·90 | 0·72 | 0·19 | 0·05 | 0·34 | 10·65 |

No. 29. MONTGOMERY.

Latitude N. 30° 58′. Longitude E. 73° 21′. Elevation 400 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1860 | ? | ? | ? | ? | 0·10 | 0·60 | 0·90 | 1·50 | ... | ... | ... | ... | ? |
| 1861 | 1·70 | ... | 1·10 | ... | 1·00 | 0·50 | 0·50 | 5·60 | ... | ... | ... | 0·40 | 10·80 |
| 1862 | 1·10 | ... | 0·20 | 0·30 | 0·30 | 0·40 | 12·20 | 2·40 | 1·00 | 3·70 | ... | ... | 21·60 |
| 1863 | 1·30 | ... | 0·20 | ... | 0·30 | 5·00 | 4·60 | 2·50 | ... | 0·30 | ... | 0·30 | 14·50 |
| 1864 | ... | 0·40 | 0·10 | 1·60 | 1·00 | 1·20 | 1·40 | 0·30 | ... | ... | ... | 0·10 | 6·10 |
| 1865 | 1·70 | 1·60 | 0·60 | 0·50 | ... | ... | 1·30 | 0·60 | 4·00 | ... | ... | 0·50 | 10·80 |
| 1866 | ... | ... | ... | ... | ... | ... | ... | 4·10 | ... | ... | ... | ... | 4·10 |
| 1867 | ... | ... | 0·10 | 0·70 | ... | ... | 0·40 | 2·30 | ... | ... | ... | 0·30 | 3·80 |
| 1868 | 0·30 | 0·50 | 0·40 | 0·20 | 0·10 | 0·30 | 0·30 | 2·00 | 0·30 | ... | ... | ... | 4·40 |
| 1869 | ... | ... | 3·60 | ... | ... | 0·10 | 8·20 | 4 30 | 9·40 | ... | ... | ... | 25·60 |
| 1870 | ... | ... | 0·20 | ... | ... | 1·50 | 2·50 | 4·90 | ... | ... | ... | 0·40 | 9·50 |
| 1871 | ... | 0·70 | ... | 0·10 | 0·10 | 0·90 | 5·60 | ... | ... | ... | ... | 1·00 | 8 40 |
| 1872 | 0·30 | ... | ... | ... | 0·20 | 1·00 | 5·10 | 1·30 | 1·50 | ... | ... | ... | 9·40 |
| 1873 | 0·10 | ... | ... | 0·10 | 1·60 | ... | 1·50 | 2 00 | 0·10 | ... | ... | 0·90 | 6·30 |
| 1874 | 0·60 | 0·20 | 0·10 | ... | ... | 3·70 | 2·30 | 2·30 | 0·30 | ... | ... | ... | 9·50 |
| 1875 | ... | 0·80 | ... | ... | ... | ... | 0·20 | ... | 0·70 | ... | 0·20 | ... | 1·90 |

MONTGOMERY—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | 0·30 | ... | ... | 0·70 | 1·80 | 4·60 | 0·90 | ... | ... | ... | 8·30 |
| 1877 | 1·80 | 7·80 | 3·00 | 0·40 | 1·60 | 0·30 | 3·80 | ... | ... | ... | 1·00 | 1·30 | 21·00 |
| 1878 | ... | 0·40 | ... | 1·20 | 2·20 | ... | 6·50 | 7·40 | ... | ... | ... | ... | 17·70 |
| 1879 | ... | ... | 1·40 | ... | 0·10 | 1·10 | 0·20 | 2·40 | ... | ... | ... | ... | 5·20 |
| 1880 | ... | 1·20 | ... | ... | ... | 6·00 | 0·80 | ... | 0·70 | ... | ... | 1·20 | 9·90 |
| 1881 | ... | 1·00 | 1·90 | 0·20 | 0·30 | 0·80 | 7·90 | ... | ... | ... | ... | ... | 12·10 |
| 1882 | 1·20 | 1·00 | ... | 0·30 | ... | 0·60 | 7·10 | 0·40 | 2·50 | ... | ... | ... | 13·30 |
| 1883 | 1·10 | ... | ... | ... | 1·90 | 0·90 | 2·20 | 1·40 | 3·70 | ... | 0·20 | ... | 11·40 |
| Mean | **0·49** | **0·68** | **0·57** | **0·25** | **0·45** | **1·07** | **3·22** | **2·18** | **1·05** | **0·17** | **0·06** | **0·27** | **10·46** |
| 1884 | ... | 0·40 | ... | 0·20 | ... | 2·90 | 6·20 | 0·60 | 1·50 | 0·80 | ... | ... | 12·60 |
| 1885 | 0·29 | ... | 0·10 | 0·70 | 1·60 | 1·10 | 1·30 | 2·30 | 0·50 | ... | ... | ... | 7·80 |
| 1886 | 0·60 | ... | 0·20 | ... | 0·70 | 2·40 | 4·20 | 1·30 | ... | ... | 0·10 | ... | 9·50 |
| Mean | **0·46** | **0·62** | **0·52** | **0·26** | **0·49** | **1·19** | **3·30** | **2·09** | **1·00** | **0·18** | **0·06** | **0·24** | **10·41** |

No. 30. GUJRAT.

Latitude N. 32° 35′. Longitude E. 74° 7′. Elevation 820 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | ? | ? | ? | 3·50 | ... | 0·30 | 12·40 | 14·00 | 6·00 | 1·80 | 0·60 | ... | ? |
| 1863 | 1·90 | 0·30 | 5·00 | 2·50 | 0·20 | 7·50 | 15·30 | 17·90 | ... | 1·00 | 0·40 | 0·50 | 52·50 |
| 1864 | 6·50 | 0·70 | 0·50 | 2·60 | 0·90 | 0·80 | 7·50 | 13·40 | 2·10 | ... | ... | 1·10 | 36·10 |
| 1865 | 4·90 | 5·40 | 4·80 | 1·70 | ... | ... | 1·80 | 8·80 | 10·90 | ... | ... | 1·30 | 39·60 |
| 1866 | 1·10 | 0·40 | 0·40 | 0·30 | 0·40 | 2·10 | 17·00 | 6·30 | 1·50 | ... | ... | ... | 29·50 |
| 1867 | 0·50 | 0·50 | 2·10 | 1·70 | 1·40 | ... | 8·40 | 13·80 | 1·90 | ... | ... | 0·30 | 30·60 |
| 1868 | 1·40 | 3·50 | 3·10 | 3·60 | 0·40 | 5·70 | 10·90 | 1·70 | 0·50 | ... | ... | 0·50 | 31·30 |
| 1869 | 1·70 | 0·70 | 10·30 | ... | ... | 1·30 | 10·50 | 0·90 | 4·80 | 0·30 | ... | 0·20 | 30·70 |
| 1870 | ... | 1·00 | 5·30 | ... | ... | 2·10 | 5·70 | 4·40 | 2·00 | ... | ... | 0·60 | 21·10 |
| 1871 | ... | 2 60 | ... | ... | 0·60 | 11·10 | 7·80 | 3·30 | 0·10 | ... | ... | 0·40 | 25·90 |
| 1872 | 1·70 | 1·10 | 3·60 | 0 70 | 0·50 | 0·90 | 13·90 | 5·10 | 2·70 | 1·20 | ... | 0·40 | 31·80 |
| 1873 | 0·90 | 0·10 | 0·80 | ... | 1·80 | 0·10 | 3·10 | 10·90 | 3·50 | ... | ... | 0·70 | 21·90 |
| 1874 | 2·60 | 1·70 | 2·30 | 3·00 | 0·70 | 2·90 | 3·30 | 4·10 | 4·10 | ... | ... | ... | 24·70 |
| 1875 | 0·20 | 1·40 | 0·20 | ... | 0·90 | 0·90 | 7·40 | 12·09 | 6·00 | 1·10 | 0·30 | 0·90 | 31·30 |
| 1876 | 0·60 | 1·30 | 3·30 | 2·80 | 2·00 | 0·70 | 23·30 | 5·00 | ... | 3·10 | 0·20 | ... | 42·30 |
| 1877 | 4·50 | 5·40 | 0·70 | 2·50 | 0·80 | 1·60 | 1·60 | 2·10 | 0·50 | 1·90 | 1·70 | 7·40 | 30·70 |
| 1878 | 0·90 | 3·30 | 0·30 | 2·40 | 1·10 | 0·30 | 9·20 | 8·40 | 3 00 | 0·60 | ... | 0·60 | 30·10 |
| 1879 | ... | ... | 1·90 | ... | ... | 7·90 | 2·60 | 11·00 | 0·50 | ... | ... | 0·40 | 24·30 |
| 1880 | 0·20 | 1·00 | ... | ... | 0·30 | 0·40 | 7 00 | 1·90 | 0·70 | ... | 0·10 | 0·80 | 12·40 |

GUJRAT—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1881 | 0·20 | 1·20 | 3·10 | 0·40 | 0·90 | 5·40 | 7·30 | 6·30 | 0·70 | 0·40 | ... | ... | 25·90 |
| 1882 | 2·40 | 1·40 | 0·10 | 1·00 | 0·20 | 0·70 | 8·70 | 2·10 | 6·40 | ... | ... | ... | 23·00 |
| 1883 | 4·20 | 0·50 | 1·00 | 0·60 | 1·20 | 3·20 | 2·30 | 3·50 | 5·10 | ... | 4·60 | ... | 26·20 |
| Mean | 1·73 | 1·60 | 2·32 | 1·33 | 0·65 | 2·54 | 8·50 | 7·13 | 2·86 | 0·52 | 0·36 | 0·73 | 30·27 |
| 1884 | 0·80 | 2·50 | 2·20 | ... | 0·40 | 1·10 | 2·80 | 8·20 | 3·70 | 0·30 | ... | ... | 22·00 |
| 1885 | 2·58 | 0·70 | ... | 2·30 | 2·10 | ... | 4·10 | 2·60 | 2·60 | ... | ... | 1·00 | 17·98 |
| 1886 | 4·20 | 0·20 | 4·40 | 0·10 | 1·20 | 4·50 | 7·80 | 4·20 | 0·50 | 2·50 | ... | 0·40 | 30·00 |
| Mean | 1·83 | 1·54 | 2·31 | 1·27 | 0·72 | 2·46 | 8·07 | 6·88 | 2·79 | 0·57 | 0·32 | 0·70 | 29·46 |

No. 31. SIALKOT.

Latitude N. 32° 29′. Longitude E. 74° 35′. Elevation 829 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1852 | P | 5·38 | 6·25 | 4·00 | 1·00 | 8·50 | 10·25 | 14·00 | 0·63 | ... | ... | 0·50 | P |
| 1853 | 0·50 | ... | ... | 4·00 | 5·50 | 4·25 | 10·50 | 2·50 | 2·00 | 0·75 | ... | P | 30·00 P |
| 1854 | 1·25 | 4·88 | 1·25 | 0·38 | 1·50 | 4·75 | 13·88 | 5·75 | 1·13 | 2·00 | 0·25 | 1·25 | 38·27 |
| 1855 | 1·75 | P | P | P | P | P | P | P | P | P | P | P | P |
| 1856 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | P | P | P | P | 0·60 | 0·80 | 14·50 | 15·90 | 0·50 | ... | ... | 1·80 | P |
| 1862 | 2·00 | ... | 1·30 | 0·90 | 0·50 | 1·70 | 33·20 | 4·30 | 2·70 | 3·90 | 4·40 | ... | 54·90 |
| 1863 | 2·90 | 0·30 | 1·60 | 1·20 | 1·00 | 8·80 | 13·10 | 9·50 | ... | 3·20 | 0·20 | 1·10 | 42·90 |
| 1864 | 0·60 | 1·00 | 1·30 | 2·30 | 0·80 | 1·00 | 3·70 | 25·80 | ... | ... | ... | 2·20 | 38·70 |
| 1865 | 0·30 | 4·90 | 5·40 | 2·20 | 0·30 | 0·20 | 5·50 | 5·80 | 7·10 | ... | ... | 2·80 | 34·50 |
| 1866 | 1·20 | 0·90 | ... | 0·90 | 0·40 | 2·20 | 14·70 | 11·60 | 0·90 | ... | ... | ... | 32·80 |
| 1867 | 0·70 | 0·30 | 1·60 | 4·50 | 1·70 | 1·00 | 9·70 | 26·20 | 1·30 | ... | ... | ... | 47·00 |
| 1868 | 2·70 | 3·70 | 0·80 | 4·20 | 1·20 | 3·60 | 15·90 | 9·70 | 0·60 | ... | ... | 0·90 | 43·30 |
| 1869 | 1·80 | 0·20 | 7·80 | 0·10 | ... | 7·30 | 20·80 | 2·40 | 4·50 | ... | .. | 0·20 | 45·10 |
| 1870 | ... | 0·50 | 4·60 | 0·40 | ... | 3·40 | 10·80 | 10·60 | 1·90 | 0·60 | ... | ... | 32·80 |
| 1871 | 0·80 | 4·20 | ... | ... | 2·10 | 6·30 | 11·00 | 3·40 | 3·00 | ... | ... | 1·20 | 32·00 |
| 1872 | 2·00 | 2·80 | 2·80 | 1·70 | 1·80 | 0·60 | 6·10 | 1·60 | 3·50 | ... | ... | 0·40 | 23·30 |
| 1873 | 0·10 | 0·70 | 2·10 | ... | 2·70 | ... | 10·20 | 11·00 | 14·80 | 0·80 | ... | 0·80 | 43·20 |
| 1874 | 1·60 | 0·60 | 1·10 | 0·40 | ... | 2·60 | 8·20 | 7·90 | 2·50 | 0·20 | ... | ... | 25·10 |
| 1875 | ... | 1·90 | ... | ... | 0·30 | 0·80 | 16·70 | 22·30 | 5·50 | 1·00 | 0·20 | 1·00 | 49·70 |
| 1876 | 0·60 | 0·50 | 2·10 | 1·60 | 1·60 | 1·60 | 27·80 | 6·29 | 6·18 | 1·41 | 0·06 | ... | 49·74 |
| 1877 | 3·49 | 4·63 | 0·89 | 6·46 | 0·72 | 1·86 | 2·03 | 0·71 | 1·97 | 0·56 | 3·61 | 4·74 | 31·67 |
| 1878 | 1·12 | 2·92 | 0·26 | 2·55 | 2·91 | 1·49 | 5·87 | 13·17 | 1·35 | 0·44 | ... | 1·02 | 33·10 |
| 1879 | ... | 0·06 | 1·93 | ... | 0·15 | 6·69 | 6·19 | 9·16 | 1·10 | ... | ... | 0·38 | 25·66 |
| 1880 | 0·05 | 1·57 | ... | 0·10 | 0·61 | 1·12 | 11·26 | 2·08 | 2·08 | ... | 0·62 | 0·70 | 20·19 |
| 1881 | 0·23 | 2·10 | 1·37 | 2·34 | 0·75 | 3·01 | 8·45 | 10·25 | 2·53 | 0·08 | ... | 0·07 | 31·18 |

SIALKOT—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | 2·33 | 2·41 | 0·15 | 1·37 | 0·22 | 0·88 | 8·59 | 7·39 | 7·42 | ... | ... | ... | 30·76 |
| 1883 | 2·75 | 0·19 | 1·04 | 0·13 | 1·21 | 0·37 | 8·35 | 8·34 | 4·62 | ... | 1·09 | 0·15 | 28·24 |
| Mean | **1·23** | **1·87** | **1·83** | **1·67** | **1·14** | **2·88** | **11·82** | **9·52** | **3·07** | **0·57** | **0·40** | **0·85** | **36·85** |
| 1884 | 0·45 | 1·49 | 2·07 | 0·50 | 0·38 | 4·18 | 6·92 | 3·87 | 9·48 | 1·52 | 0·03 | ... | 30·89 |
| 1885 | 4·15 | 1·29 | 0·15 | 3·19 | 3·16 | 0·74 | 6·66 | 4·13 | 3·59 | ... | ... | 1·38 | 28·44 |
| 1886 | 4·15 | 0·37 | 4·32 | 0·17 | 1·24 | 12·88 | 15·07 | 9·07 | 0·94 | 0·82 | ... | 0·93 | 49·96 |
| Mean | **1·41** | **1·78** | **1·86** | **1·63** | **1·18** | **3·19** | **11·58** | **9·13** | **3·24** | **0·60** | **0·36** | **0·84** | **36·80** |

No. 32. GUJRANWALA.

Latitude N. 32° 10′. Longitude E. 74° 14′. Elevation 800 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | 1·40 | ... | 1·40 | 0·50 | 0·30 | 0·30 | 17·50 | 3·60 | 0·20 | 3·40 | 0·30 | ... | 28·99 |
| 1863 | 2·20 | 0·50 | 0·50 | 0·20 | 0·80 | 3·30 | 11·40 | 6·70 | ... | 1·20 | 0·20 | 0·70 | 27·70 |
| 1864 | 0·30 | 0·80 | 0·40 | 2·00 | 1·10 | 0·60 | 5·30 | 9·30 | 0·60 | ... | ... | 0·70 | 21·10 |
| 1865 | 1·80 | 4·30 | 2·70 | 0·90 | 0·80 | 0·80 | 4·20 | 6·80 | 9·30 | ... | ... | 0·70 | 32·30 |
| 1866 | 0·50 | 0·30 | 0·80 | 0·30 | 0·70 | 0·50 | 18·10 | 11·90 | 0·20 | 0·40 | ... | ... | 33·70 |
| 1867 | 0·80 | 0·30 | 2·60 | 2·50 | 2·00 | 1·40 | 7·90 | 10·50 | 2·90 | ... | ... | 0·80 | 31·70 |
| 1868 | 2·00 | 1·60 | 1·30 | 3·00 | 0·30 | 1·70 | 10·60 | 3·40 | 0·40 | ... | ... | 0·70 | 25·00 |
| 1869 | 0·10 | ... | 4·50 | 0·20 | ... | 1·80 | 9·00 | 3·10 | 6·00 | 0·10 | ... | 0·10 | 24·90 |
| 1870 | ... | 0·60 | 0·80 | 0·50 | ... | 1·40 | 3·30 | 7·30 | 1·20 | 0·60 | ... | 0·40 | 16·10 |
| 1871 | ... | 1·20 | ... | ... | 0·80 | 3·70 | 3·40 | 1·70 | 0·60 | ... | ... | 0·70 | 12·10 |
| 1872 | 2·70 | 1·00 | 2·40 | 0·30 | 0·40 | 1·50 | 3·10 | 7·40 | 2·80 | ... | ... | 0·20 | 21·80 |
| 1873 | 0·10 | 0.10 | 1·40 | ... | 1·70 | 0·90 | 3·60 | 11·70 | 6·50 | 1·20 | ... | 0·40 | 27·60 |
| 1874 | 1·80 | 6·60 | 2·40 | 0·10 | ... | 2·70 | 4·30 | 4·30 | 2·80 | ... | ... | ... | 25·00 |
| 1875 | ... | 1·70 | ... | ... | 1·50 | 1·00 | 21·20 | 15·20 | 3·10 | 1·90 | ... | 0·60 | 46·20 |
| 1876 | 0·20 | 0·50 | 2·20 | 3·10 | 1·30 | 0·30 | 20·60 | 2·40 | 0·40 | 1·80 | 0·10 | ... | 32·90 |
| 1877 | 3·30 | 4·60 | 0·90 | 1·90 | 0·40 | ... | 2·20 | 0·60 | 0·50 | 0·70 | 2·80 | 6·00 | 23·90 |
| 1878 | 0·70 | 4·10 | 0·20 | 1·70 | 1·80 | 1·30 | 7·70 | 8·00 | 1·60 | 0·60 | ... | 0·20 | 27·90 |
| 1879 | ... | ... | 0·90 | ... | ... | 5·10 | 2·90 | 5·50 | 0·80 | ... | ... | 0·70 | 15·90 |
| 1880 | ... | 1·20 | ... | ... | 0·10 | 2·60 | 5·70 | 0·50 | 1·20 | ... | 0·10 | 1·20 | 12·60 |
| 1881 | 0·20 | 1·30 | 1·00 | 1·40 | 1·20 | 3·50 | 7·00 | 10·20 | ... | ... | ... | ... | 25·80 |
| 1882 | 2·80 | 1·70 | ... | 1·20 | ... | 2·40 | 5·80 | 3·60 | 6·30 | ... | ... | ... | 24·00 |
| 1883 | 3·10 | 0·10 | 0·70 | 0·30 | 0·70 | 0·10 | 8·20 | 3·20 | 7·70 | ... | 2·90 | ... | 27·00 |
| Mean | **1·09** | **1·48** | **1·23** | **0·91** | **0·72** | **1·68** | **8·32** | **6·22** | **2·51** | **0·54** | **0·29** | **0·64** | **25·63** |
| 1884 | 0·70 | 1·30 | 1·20 | 0·70 | ... | 1·30 | 7·50 | 2·40 | 5·50 | 1·50 | ... | ... | 22·10 |
| 1885 | 2·20 | 0·20 | 0·20 | 0·80 | 2·90 | 0·40 | 3·40 | 2·50 | 1·10 | ... | ... | 1·00 | 14·70 |
| 1886 | 3·50 | 0·10 | 3·90 | ... | 0·60 | 8·30 | 9·00 | 5·00 | 0·50 | 1·20 | ... | ... | 32·10 |
| Mean | **1·22** | **1·36** | **1·30** | **0·86** | **0·78** | **1·88** | **8·12** | **5·87** | **2·50** | **0·58** | **0·26** | **0·60** | **25·33** |

No. 33. GURDASPUR.

Latitude N. 32° 3′. Longitude E. 75° 27′. Elevation 1,100 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1857 | P | P | P | P | ... | 3·20 | 6·40 | 15·00 | 10·60 | 0·10 | 1·70 | ... | P |
| 1858 | 3·50 | 2·00 | 0·70 | ... | ... | 6·20 | 9·10 | 7·10 | 4·00 | ... | ... | 0·30 | 32·90 |
| 1859 | 3·10 | 2·30 | ... | 3·50 | 1·00 | 4·00 | 3·00 | 4·00 | 7·00 | ... | ... | 1·00 | 28·90 |
| 1860 | 1·00 | 3·00 | 1·00 | ... | 0·60 | 0·60 | 1·20 | 1·10 | 0·20 | 11·50 | ... | ... | 20·20 |
| 1861 | 4·10 | ... | 0·60 | 0·60 | 0·90 | 0·90 | 17·20 | 9·50 | 5·00 | ... | ... | 1·00 | 39·80 |
| 1862 | 0·90 | 0·30 | 2·10 | 1·00 | 1·30 | 18·30 | 23·10 | 7·10 | 4·30 | 1·20 | 0·40 | 0·10 | 60·10 |
| 1863 | 4·30 | 0·70 | 4·10 | ... | ... | 5·10 | 20·30 | 5·40 | 1·60 | 0·50 | ... | 1·20 | 43·20 |
| 1864 | ... | 7·00 | 4·00 | 0·20 | 0·20 | 1·20 | 7·90 | 5·60 | 0·90 | ... | ... | 1·50 | 28·50 |
| 1865 | 0·30 | 5·10 | 0·90 | 0·90 | ... | 5·20 | 2·20 | 4·20 | 1·00 | ... | ... | 7·30 | 27·10 |
| 1866 | 2·30 | 1·70 | 0·30 | 0·30 | ... | 5·50 | 9·80 | 7·70 | 0·70 | ... | ... | ... | 28·30 |
| 1867 | 0·60 | 0·30 | 1·30 | ... | 4·80 | 0·10 | 5·40 | 8·90 | 0·80 | ... | ... | 0·40 | 22·60 |
| 1868 | 0·60 | 5·20 | 2·90 | 1·80 | 0·20 | 4·60 | 13·40 | 13·40 | 0·40 | ... | ... | 0·30 | 42·80 |
| 1869 | 2·40 | 0·30 | 6·10 | ... | ... | 2·30 | 10·40 | 4·40 | 9·70 | 0·20 | ... | ... | 35·80 |
| 1870 | 0·80 | 0·60 | 3·00 | 0·50 | 0·80 | 2·30 | 5·90 | 12·50 | 3·60 | 0·40 | ... | 0·40 | 30·80 |
| 1871 | 0·20 | 3·00 | ... | ... | 0·30 | 8·30 | 12·20 | 1·00 | 3·80 | ... | ... | 0·70 | 29·50 |
| 1872 | 1·30 | 1·50 | 2·40 | 0·40 | 1·00 | 2·30 | 6·10 | 2·40 | 5·50 | ... | ... | 0·40 | 23·30 |
| 1873 | 0·40 | ... | ... | ... | 1·50 | ... | 5·70 | 4·00 | 1·70 | ... | ... | 0·30 | 14·20 |
| 1874 | 0·90 | 1·30 | 1·20 | ... | ... | 6·00 | 3·10 | 3·20 | 2·40 | ... | ... | ... | 18·10 |
| 1875 | ... | 1·30 | 0·20 | ... | 1·70 | 0·50 | 15·30 | 23·60 | 10·50 | 1·90 | ... | 0·10 | 55·10 |
| 1876 | 0·60 | ... | 3·40 | 0·60 | 0·10 | 0·10 | 20·60 | 7·60 | 0·60 | 1·40 | ... | ... | 35·00 |
| 1877 | 4·80 | 4·20 | 1·50 | 1·80 | 1·20 | 1·00 | 2·90 | 0·80 | 6·50 | 0·10 | 2·40 | 8·90 | 36·10 |
| 1878 | 1·10 | 3·90 | ... | 1·60 | 3·70 | 0·50 | 3·30 | 6·10 | 0·90 | ... | ... | ... | 21·10 |
| 1879 | ... | ... | 1·70 | ... | ... | 8·60 | 4·30 | 6·70 | 0·80 | ... | ... | 0·80 | 22·90 |
| 1880 | 1·50 | 0·80 | ... | ... | 0·90 | 1·90 | 15·30 | 1·40 | 0·70 | ... | 0·80 | 0·60 | 23·90 |
| 1881 | ... | 1·20 | 1·30 | 0·40 | 0·10 | 6·70 | 12·30 | 7·50 | 1·40 | 0·10 | ... | ... | 31·00 |
| 1882 | 2·20 | 1·30 | ... | ... | 0·10 | 0·80 | 11·80 | 12·20 | 6·40 | ... | ... | ... | 34·80 |
| 1883 | 2·90 | ... | ... | ... | 0·30 | 0·60 | 2·60 | 4·50 | 6·50 | ... | 0·08 | ... | 17·48 |
| Mean | 1·53 | 1·81 | 1·49 | 0·52 | 0·77 | 3·59 | 9·29 | 6·92 | 3·61 | 0·64 | 0·20 | 0·96 | 31·33 |
| 1884 | 0·50 | 1·22 | 2·70 | 0·60 | 0·10 | 5·10 | 17·50 | 12·70 | 4·30 | ... | ... | ... | 44·72 |
| 1885 | 4·90 | 0·50 | 1·06 | 1·50 | 1·60 | 4·30 | 9·80 | 6·80 | 1·30 | ... | ... | 4·80 | 36·56 |
| 1886 | 3·97 | 0·40 | 5·70 | ... | 3·00 | 9·20 | 18·80 | 6·60 | 5·36 | 0·40 | ... | 2·00 | 55·43 |
| Mean | 1·70 | 1·69 | 1·66 | 0·54 | 0·85 | 3·85 | 9·90 | 7·10 | 3·62 | 0·59 | 0·18 | 1·09 | 32·77 |

No. 34. LAHORE.

Latitude N. 31° 34′. Longitude E. 74° 20′. Elevation 732 feet.

Administration: PUNJAB. Rainfall Province No. II.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1851 | P | P | P | 1·00 | 0·45 | 0·54 | 15·11 | 1·49 | 2·35 | ... | 0·60 | 0·10 | P |
| 1852 | ... | 1·78 | 6·49 | 2·50 | 1·14 | 8·80 | 3·13 | 5·51 | 0·57 | ... | 0·34 | 0·05 | 30·31 |
| 1853 | 0·09 | P | 0·22 | P | P | P | P | P | P | P | P | P | P |
| 1854 | 0·34 | 2·53 | 0·33 | 0·20 | 0·21 | 2·98 | 14·05 | 9·35 | 0·79 | 2·15 | 0·50 | 0·04 | 33·47 |
| 1855 | 0·45 | P | P | P | P | P | P | P | P | P | P | P | P |
| 1856 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | P | P | P | P | 2·10 | 3·50 | 9·10 | 6·50 | ... | ... | ... | 1·30 | P |
| 1862 | 0·10 | ... | 2·50 | ... | 0·50 | 1·30 | 9·40 | 3·50 | 0·30 | 2·30 | 0·30 | ... | 20·20 |
| 1863 | 2·40 | 0·30 | 0·30 | ... | ... | 2·00 | 17·30 | 2·20 | ... | 1·70 | ... | 0·20 | 26·40 |
| 1864 | ... | 0·30 | 0·50 | 1·10 | 0·30 | 1·30 | 3·60 | 4·80 | ... | ... | ... | 0·50 | 12·40 |
| 1865 | 1·30 | 2·50 | 1·80 | 0·50 | 0·70 | ... | 4·90 | 3·30 | 7·20 | ... | ... | 1·80 | 24·00 |
| 1866 | 0·40 | 0·50 | ... | 0·20 | ... | 0·50 | 5·30 | 10·00 | ... | 0·30 | ... | ... | 17·20 |
| 1867 | ... | 0·80 | 0·50 | 0·80 | 3·40 | 1·50 | 5·50 | 4·80 | 1·60 | ... | ... | 1·20 | 20·10 |
| 1868 | 1·50 | 3·00 | 1·60 | 1·20 | 1·10 | 0·90 | 4·60 | 0·70 | ... | ... | ... | 0·50 | 15·10 |
| 1869 | 0·60 | ... | 3·40 | ... | ... | 1·70 | 5·50 | 0·20 | 4·90 | 3·60 | ... | ... | 19·90 |
| 1870 | ... | ... | 0·30 | 0·10 | ... | 0·60 | 1·20 | 6·20 | 0·20 | ... | ... | 0·60 | 9·20 |
| 1871 | ... | 1·50 | ... | ... | 1·30 | 0·70 | 4·30 | ... | ... | ... | ... | 0·90 | 8·70 |
| 1872 | 0·90 | 0·80 | 1·40 | ... | 0·60 | 2·60 | 6·30 | 2·80 | 1·70 | ... | ... | ... | 17·10 |
| 1873 | ... | ... | ... | ... | 1·50 | 0·40 | 13·20 | 4·50 | 4·40 | ... | ... | 1·30 | 25·30 |
| 1874 | 2·00 | 0·90 | 1·00 | ... | ... | 2·00 | 4·60 | 3·30 | 1·40 | ... | ... | ... | 15·20 |
| 1875 | ... | 1·53 | ... | ... | 1·35 | 1·60 | 3·37 | 16·42 | 11·40 | 1·63 | 0·20 | 0·30 | 37·80 |
| 1876 | 0·06 | 0·13 | 1·45 | 0·72 | 0·35 | 1·12 | 16·65 | 2·10 | 0·95 | 1·44 | ... | ... | 24·97 |
| 1877 | 1·88 | 4·67 | 0·90 | 3·34 | 0·69 | ... | 2·01 | 0·12 | 2·03 | 0·70 | 1·32 | 2·57 | 20·23 |
| 1878 | 0·20 | 2·46 | 0·19 | 1·45 | 1·77 | 0·36 | 5·96 | 8·03 | 0·33 | ... | ... | 0·13 | 20·88 |
| 1879 | ... | 0·01 | 1·32 | ... | 0·01 | 5·48 | 1·13 | 7·49 | 3·12 | 0·17 | ... | 0·45 | 19·18 |
| 1880 | ... | 0·78 | ... | ... | 0·89 | 3·10 | 4·73 | 0·58 | 0·29 | ... | 0·26 | 0·64 | 11·27 |
| 1881 | 0·03 | 1·31 | 2·35 | 0·57 | 0·95 | 0·44 | 12·38 | 8·05 | 0·18 | 0·12 | ... | ... | 26·38 |
| 1882 | 1·43 | 1·81 | 0·03 | 0·99 | 0·22 | 0·47 | 13·03 | 9·10 | 10·35 | ... | ... | ... | 37·43 |
| 1883 | 2·39 | 0·33 | 0·43 | 0·18 | 3·05 | 0·58 | 2·27 | 0·70 | 10·72 | ... | 0·66 | 0·07 | 21·38 |
| Mean | **0·62** | **1·16** | **1·08** | **0·59** | **0·87** | **1·71** | **7·25** | **4·68** | **2·49** | **0·54** | **0·16** | **0·49** | **21·64** |
| 1884 | 0·31 | 1·64 | 0·16 | 0·58 | 0·53 | 2·43 | 9·35 | 2·80 | 3·29 | 0·24 | 0·08 | ... | 21·41 |
| 1885 | 1·47 | 0·46 | ... | 1·06 | 4·38 | 0·81 | 4·50 | 4·43 | 0·37 | ... | ... | 1·23 | 18·71 |
| 1886 | 2·31 | 0·20 | 2·34 | ... | 0·08 | 3·93 | 11·53 | 3·93 | 0·97 | 2·27 | 0·06 | 0·09 | 27·71 |
| Mean | **0·69** | **1·12** | **1·06** | **0·59** | **0·95** | **1·78** | **7·38** | **4·58** | **2·39** | **0·57** | **0·15** | **0·48** | **21·74** |

No 35. AMRITSAR.

Latitude N. 31° 37′. Longitude E. 74° 55′. Elevation 756 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1860 | ? | ? | ? | ? | 0·80 | 0·80 | 12·70 | 5·90 | ... | ... | ... | ... | ? |
| 1861 | 2·10 | ... | ... | ... | 1·70 | 1·70 | 11·10 | 8·20 | 0·10 | ... | ... | 1·70 | 26·60 |
| 1862 | 0·60 | ... | 0·80 | 0·90 | 0·10 | 0·50 | 8·80 | 4·70 | 1·20 | 0·60 | 2·50 | ... | 20·70 |
| 1863 | 3·00 | ... | 0·70 | 0·20 | ... | 5·00 | 13·40 | 13·50 | ... | 5·10 | 0·30 | 0·10 | 41·30 |
| 1864 | 0·10 | 0·10 | ... | 1·30 | 2·40 | 1·60 | 9·30 | 4·30 | ... | ... | ... | 0·70 | 19·80 |
| 1865 | 1·50 | 2·60 | 3·30 | 1·30 | 1·30 | 0·50 | 6·00 | 6·40 | 4·50 | ... | ... | 2·50 | 29·90 |
| 1866 | 0·80 | 0·60 | ... | 0·30 | 0·10 | 1·30 | 13·10 | 6·10 | 0·20 | 0·30 | ... | ... | 22·80 |
| 1867 | ... | 0·40 | 0·30 | 1·00 | 1·30 | 0·90 | 6·00 | 11·30 | 4·00 | ... | ... | ... | 25·20 |
| 1868 | 0·60 | 3·50 | 2·30 | 1·00 | ... | 2·60 | 2·40 | 3·80 | 0·80 | ... | ... | 0·20 | 17·20 |
| 1869 | 1·90 | ... | 3·80 | ... | ... | 4·40 | 7·60 | 0·20 | 2·20 | 1·50 | ... | ... | 21·60 |
| 1870 | ... | ... | 0·10 | ... | ... | 0·30 | 1·20 | 4·20 | 5·00 | ... | ... | 0·80 | 11·60 |
| 1871 | 0·50 | 3·00 | ... | ... | 1·30 | 3·50 | 5·00 | 1·70 | 0·30 | ... | ... | 1·00 | 16·30 |
| 1872 | 0·90 | 0·90 | 0·50 | 0·70 | 1·30 | 1·70 | 9·40 | 7·10 | 5·40 | ... | ... | 0·40 | 28·30 |
| 1873 | 0·10 | ... | 0·20 | ... | 1·40 | ... | 5·00 | 7·90 | 5·40 | 0·50 | ... | 0·80 | 21·30 |
| 1874 | 1·90 | 1·00 | 1·40 | 0·10 | ... | 3·30 | 5·30 | 3·10 | 0·10 | ... | ... | ... | 16·20 |
| 1875 | ... | 1·90 | ... | ... | 1·30 | 0·90 | 8·20 | 16·70 | 12·20 | 1·20 | ... | 0·60 | 43·00 |
| 1876 | 0·20 | ... | 0·80 | 1·30 | 0·60 | ... | 19·00 | 5·90 | 1·00 | 1·70 | ... | ... | 30·50 |
| 1877 | 3·90 | 6·00 | 0·50 | 3·30 | 1·40 | 2·00 | 2·20 | 0·70 | 3·90 | 1·10 | 2·50 | 5·00 | 32·50 |
| 1878 | 1·70 | 2·40 | 0·30 | 2·60 | 2·30 | 0·40 | 8·90 | 12·80 | 1·50 | ... | ... | ... | 32·90 |
| 1879 | ... | ... | 1·00 | ... | 0·40 | 5·20 | 1·60 | 7·20 | 1·10 | ... | ... | 2·30 | 18·80 |
| 1880 | ... | 1·70 | ... | ... | ... | 6·00 | 12·00 | 0·10 | 1·10 | ... | ... | 0·80 | 21·70 |
| 1881 | ... | 1·90 | 2·60 | 0·20 | 1·30 | 10·80 | 19·40 | 18·20 | 1·90 | 0·10 | ... | ... | 56·40 |
| 1882 | 2·20 | 1·50 | 0·20 | 0·80 | 0·30 | 0·80 | 11·20 | 7·30 | 9·30 | ... | ... | ... | 33·60 |
| 1883 | 2·70 | ... | 0·30 | 0·60 | 1·30 | ... | 6·10 | 4·20 | 7·80 | ... | 1·20 | ... | 24·20 |
| Mean | 1·07 | 1·20 | 0 83 | 0·68 | 0·86 | 2·26 | 8·54 | 6·73 | 2·88 | 0·50 | 0·27 | 0·70 | 26·52 |
| 1884 | ... | 0·80 | 0·60 | ... | 0·50 | 1·70 | 8·50 | 2·70 | 6·20 | 0·10 | ... | 0·20 | 21·30 |
| 1885 | 2·70 | 0·40 | ... | 0·50 | 3·70 | 0·30 | 3·10 | 2·90 | 1·10 | ... | ... | 1·50 | 16·20 |
| 1886 | 1·80 | 0·40 | 3·50 | 0·20 | 0·20 | 8·40 | 13·60 | 0·50 | 0·20 | 1·80 | ... | 0·10 | 30·70 |
| Mean | 1·12 | 1·12 | 0·89 | 0·63 | 0·93 | 2·39 | 8·52 | 6·21 | 2·83 | 0·52 ~~0·50~~ | 0·24 | 0·69 | 26·09 |

No. 36. FEROZEPORE.

Latitude N. 27° 47′. Longitude E. 77° 0′. Elevation 645 feet.

Administration: PUNJAB. Rainfall Province No. II.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | 0.70 | 1·40 | 10·15 | 8·88 | 1·10 | ... | ... | ... | ? |
| 1845 | ... | 1·80 | ... | ... | 0·20 | 2·80 | 10·70 | 13·30 | ... | ... | ... | 1·30 | 30·10 |
| 1846 | ... | ... | ... | ... | ... | 10·90 | 4·70 | 4·00 | 5·25 | ... | ... | ... | 24·85 |
| 1847 | 0·55 | 0·04 | ... | ... | ... | 0·67 | 4·40 | 7·40 | 4·75 | 0·60 | 0·20 | ... | 18·61 |
| 1848 | 0·28 | ... | ... | ... | 1·63 | 1·49 | 5·50 | 8·89 | 1·02 | 0·29 | ... | ... | 19·10 |
| 1849 | 1·60 | ... | ... | ... | 0·23 | 8·35 | 2·51 | 9·60 | 7·50 | ... | ... | ... | 29·79 |
| 1850 | 3·60 | 1·20 | ... | 0·50 | 1·07 | 0·85 | 15·34 | 5·40 | ... | ... | ... | 2·10 | 30·06 |
| 1851 | 1·17 | 1·68 | 0·36 | 0·14 | 0·05 | 0·74 | 18·81 | 0·18 | ... | ... | ... | ... | 23·13 |
| 1852 | 0·16 | 0·65 | 3·92 | 0·52 | 1·18 | 4·95 | 4·36 | 13·93 | 0·63 | ... | 0·15 | 0·30 | 30·75 |
| 1853 | 1·19 | 0·07 | 0·16 | 0·40 | 1·75 | 0·25 | 6·19 | ... | 0·40 | 5·29 | ... | ... | 15·70 |
| 1854 | 0·44 | 2·56 | 0·28 | ... | 0·19 | 0·70 | 10·30 | 7·51 | 2·75 | 2·50 | ... | 1·36 | 28·59 |
| 1855 | 1·09 | ... | 1·77 | 1·48 | ... | 1·55 | 7·23 | 1·25 | 2·67 | ... | ... | ... | 17·04 |
| 1856 | 0·34 | ... | ... | ... | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1857 to 1861 | Not on record. | | | | | | | | | | | | |
| 1862 | ? | ? | ? | ... | 0·30 | 1·40 | 13·50 | 6·40 | 0·20 | 1·80 | 0·30 | ... | ? |
| 1863 | 4·50 | 0·10 | ... | ... | ... | 4·60 | 10·00 | 1·90 | ... | 5·20 | ... | 1·50 | 27·80 |
| 1864 | 3·50 | 0·50 | 0·80 | 1·70 | 2·40 | 4·50 | 5·70 | 7·00 | 2·20 | ... | ... | 0·30 | 28·60 |
| 1865 | 3·00 | 6·40 | 3·60 | 2·70 | ... | ... | 15·30 | 10·00 | 9·60 | ... | ... | 2·50 | 53·10 |
| 1866 | 6·00 | 0·50 | ... | 1·10 | 0·30 | 6·30 | 6·00 | 6·10 | ... | 1·00 | ... | ... | 27·30 |
| 1867 | 0·90 | ... | 0·50 | 1·00 | 2·50 | ... | 2·60 | 2·90 | 0·50 | ... | ... | 0·50 | 11·40 |
| 1868 | 0·30 | 3·60 | 1·00 | 2·10 | ... | ... | 5·80 | 3·30 | 0·80 | 0.10 | ... | ... | 17·00 |
| 1869 | 1·40 | ... | 7·20 | ... | ... | ... | 17·20 | 0·80 | 7·30 | 1·40 | ... | ... | 35·30 |
| 1870 | ... | ... | 0·80 | ... | 0·40 | 1·10 | 0·40 | 10·70 | ... | ... | ... | 0·40 | 13·80 |
| 1871 | ... | 1·90 | ... | 0·40 | 0·60 | 4·50 | 3·50 | ... | ... | ... | ... | 1·00 | 11·90 |
| 1872 | 0·50 | 0·50 | 0·20 | 2·00 | 0·60 | 5·80 | 8·40 | 10·70 | 3·30 | ... | ... | 0·20 | 32·20 |
| 1873 | ... | ... | 0·20 | ... | 0·30 | 0·20 | 10·30 | 7·20 | 2·20 | 1·70 | ... | 0·60 | 22·70 |
| 1874 | 1·10 | 0·40 | 0·60 | ... | ... | 3·00 | 3·70 | 2·00 | 1·40 | ... | ... | ... | 12·20 |
| 1875 | ... | 0·60 | ... | ... | 0·30 | 0·70 | 5·30 | 12·50 | 9·60 | ... | ... | ... | 29·00 |
| 1876 | 0·30 | 0·20 | 1·30 | 0·30 | 0·30 | 0·70 | 6·80 | 2·80 | 0·20 | 0·60 | ... | ... | 13·50 |
| 1877 | 0·80 | 1·10 | 0·30 | 1·40 | 2·00 | 0·60 | 2·10 | 0·40 | 2·10 | ... | 0·90 | 3·50 | 15·20 |
| 1878 | 0·40 | 0·40 | ... | 2·40 | 2·10 | 0·70 | 3·90 | 7·10 | ... | ... | ... | 0·20 | 17·20 |
| 1879 | ... | 0·70 | 0·70 | ... | ... | 1·10 | 1·20 | 4·60 | 2·30 | ... | ... | 0·60 | 11·20 |
| 1880 | ... | 1·00 | ... | ... | 0·10 | 4·80 | 3·20 | 0·10 | ... | ... | ... | 1·00 | 10·20 |
| 1881 | ... | 0·90 | 1·80 | 2·00 | 0·50 | 0·80 | 9·20 | 5·10 | 0·60 | ... | ... | ... | 20·90 |
| 1882 | 1·00 | 0·50 | ... | 0·10 | 1·00 | 1·00 | 6·00 | 1·40 | 11·50 | ... | ... | ... | 22·50 |
| 1883 | 1·90 | ... | 0·10 | 0·90 | 0·50 | ... | 2·80 | 0·40 | 9·20 | ... | 0·60 | ... | 16·40 |
| **Mean** | **1·09** | **0·83** | **0·78** | **0·62** | **0·62** | **2·25** | **7·15** | **5·40** | **2·62** | **0·60** | **0·06** | **0·51** | **22·53** |
| 1884 | 0·29 | 0·80 | 0·40 | ... | 0·40 | 3·90 | 1·40 | 2·40 | 4·30 | 0·50 | ... | ... | 14·30 |
| 1885 | 1·20 | ... | ... | 0·40 | 2·40 | 1·20 | 3·60 | 1·70 | ... | ... | ... | 1·10 | 11·60 |
| 1886 | 2·10 | 0·30 | 1·70 | ... | ... | 6·40 | 4·90 | 1·50 | ... | 1·50 | 0·20 | ... | 18·60 |
| **Mean** | **1·10** | **0·79** | **0·76** | **0·58** | **0·65** | **2·38** | **6·84** | **5·12** | **2·52** | **0·61** | **0·06** | **0·50** | **21·91** |

No. 37. HOSHIARPUR.

Latitude N. 31° 32′. Longitude E. 75° 57′. Elevation 1,058 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1857 | P | P | P | P | ... | 2·60 | 8·90 | 10·00 | 5·20 | 0·20 | 0·70 | ... | P |
| 1858 | 2·60 | 1·10 | 0·30 | ... | 0·10 | 2·10 | 15·00 | 7·20 | 6·20 | ... | ... | 0·60 | 35·20 |
| 1859 | 3·40 | 1·80 | 3·10 | 2·00 | 0·80 | 6·40 | 6·00 | 4·10 | 6·20 | ... | ... | 10·70 | 44·50 |
| 1860 | P | 1·20 | 1·10 | 0·40 | 0·70 | 0·90 | 11·60 | 7·50 | 0·40 | ... | ... | ... | 23·80 P |
| 1861 | 1·80 | ... | 0·30 | ... | 1·80 | 6·30 | 14·10 | 11·50 | ... | ... | ... | ... | 35·80 |
| 1862 | 0·30 | 0·10 | 1·70 | 0·40 | 3·70 | 5·60 | 19·20 | 14·00 | 5·70 | 0·40 | ... | 0·20 | 51·30 |
| 1863 | 2·90 | 0·50 | 0·80 | 0·50 | 0·10 | 4·00 | 9·20 | 9·20 | 1·40 | 5·00 | ... | 1·10 | 34·70 |
| 1864 | 1·00 | 2·90 | 1·50 | 0·80 | 0·30 | 1·10 | 12·00 | 10·70 | 1·10 | ... | ... | 0·20 | 31·60 |
| 1865 | 0·20 | 5·20 | 3·80 | 0·80 | 0·30 | 1·50 | 4·10 | 17·50 | 2·00 | ... | ... | 3·80 | 39·20 |
| 1866 | 2·10 | 2·60 | ... | 1·80 | ... | 3·20 | 10·60 | 14·70 | 0 50 | 0·30 | ... | ... | 35·80 |
| 1867 | 0·90 | 0·70 | 1·00 | 0·80 | 3·80 | 2·30 | 9·60 | 9·20 | 2·40 | ... | ... | 0·10 | 30·80 |
| 1868 | 0·70 | 3·50 | 3·20 | 0·60 | 0·20 | 1·60 | 9·10 | 6·40 | 0·40 | ... | ... | ... | 25·70 |
| 1869 | 2·10 | 0·30 | 5·60 | ... | ... | 0·80 | 7·90 | 6·90 | 8·10 | ... | ... | 0·90 | 32·60 |
| 1870 | 0·20 | 0·30 | 0·60 | 0·90 | ... | 3·60 | 8·10 | 13·40 | 5·00 | ... | ... | 0·80 | 32 90 |
| 1871 | 0·40 | 1·90 | ... | 0·30 | 0·60 | 15·40 | 6·20 | 3·10 | 1·60 | ... | ... | 1·00 | 30·50 |
| 1872 | 1·30 | 1·70 | 0·30 | 0·20 | 2·90 | 1·30 | 14·00 | 11·80 | 8·40 | 0·20 | ... | 1·40 | 43·90 |
| 1873 | 0·40 | ... | 1·30 | 0·20 | 0·90 | 0·20 | 6·10 | 8·60 | 4·90 | 0·50 | ... | 0·90 | 24·00 |
| 1874 | 2·80 | 2·40 | 1·70 | 0·30 | ... | 5·20 | 9·40 | 10·50 | 4·70 | ... | ... | ... | 37·00. |
| 1875 | ... | 2·60 | 0·20 | ... | 0·70 | 2·80 | 8·00 | 13·70 | 15·00 | 1·00 | ... | 0·60 | 44·60 |
| 1876 | 0·60 | 0·90 | 2·70 | 3·90 | 1·20 | 0·50 | 11·80 | 8·80 | 2·70 | 1·20 | ... | ... | 34·30 |
| 1877 | 4·70 | 3·10 | 1·60 | 2·00 | 1·10 | 4·20 | 7·50 | 0·80 | 14·20 | 0·50 | 1·00 | 7·10 | 47·80 |
| 1878 | 1·90 | 3·30 | 0·20 | 2·20 | 3·30 | 0·80 | 8·20 | 26·40 | 1·70 | ... | ... | 0·10 | 48·10 |
| 1879 | 0·10 | 0·10 | 1·80 | ... | ... | 10·50 | 3·60 | 5·50 | 0·70 | ... | ... | 0·90 | 23·20 |
| 1880 | 0·70 | 3·90 | ... | ... | 0·50 | 3·00 | 23·90 | 2·50 | 2·20 | ... | 0·20 | 1·60 | 38·50 |
| 1881 | ... | 1·90 | 5·50 | 0·20 | 1·10 | 4·80 | 19·90 | 8·08 | 3·07 | 0·01 | ... | ... | 44·56 |
| 1882 | 4·06 | 3·17 | ... | 0·22 | 0·08 | 0·73 | 9·80 | 6·06 | 4·23 | ... | ... | ... | 28·35 |
| 1883 | 3·40 | 0·03 | 0·04 | ... | 0·50 | 0·30 | 2·90 | 2·80 | 9·70 | ... | 0·20 | 0·20 | 20·07 |
| Mean | 1·54 | 1·74 | 1·47 | 0·71 | 0·91 | 3·40 | 10·25 | 9·29 | 4·36 | 0·34 | 0·08 | 1·9 | 35·28 |
| 1884 | 0·20 | 0·80 | 1·30 | 0·10 | ... | 1·80 | 9·10 | 8·00 | 6·90 | ... | ... | ... | 28·20 |
| 1885 | 3·50 | 0·70 | 0·70 | 0·60 | 2·50 | 2·70 | 2·30 | 4·40 | 1·90 | ... | ... | 3·24 | 22·54 |
| 1886 | 3·03 | 0·02 | 3·76 | ... | 3·03 | 2·06 | 17·25 | 10·99 | 1·19 | 3·63 | 0·08 | 0 81 | 45·85 |
| Mean | 1·62 | 1·61 | 1·52 | 0·66 | 1·01 | 3·28 | 10·18 | 9·14 | 4·26 | 0·43 | 0·07 | 1·21 | 34·99 |

No. 38. JULLUNDUR.

Latitude N. 31° 20′. Longitude E. 75° 37′. Elevation 1,000 feet

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1852 | ... | ... | 5·26 | 3·01 | 0·90 | 2·58 | 6·84 | 24·52 | ? | ... | ... | ... | ? |
| 1853 | ... | ? | ... | 1·20 | 1·24 | 0·64 | 4·69 | 0·69 | 0·45 | 4·69 | ... | ... | ? |
| 1854 | 1·12 | 2·03 | 0·29 | ... | 0·44 | 3·31 | 3·67 | 2·60 | 2·94 | 4·19 | 1·07 | 1·42 | 23·08 |
| 1855 | 3·13 | ... | 2·25 | 1·56 | 0·02 | 0·52 | 6·45 | 1·72 | 2·68 | 0·05 | ... | ... | 18·38 |
| 1856 | 0·40 | 0·60 | 0·02 | ... | 0·80 | 5·40 | 11·00 | 9·70 | 5·50 | ... | ... | 0·40 | 33·82 |
| 1857 | 3·80 | 1·50 | ... | 1·20 | 0·10 | 1·40 | 8·00 | 6·70 | 4·50 | 0·10 | 0·20 | ... | 27·50 |
| 1858 | 1·70 | 0·50 | 0·30 | ... | ... | 2·10 | 11·30 | 2·60 | 3·30 | ... | ... | 0·10 | 21·90 |
| 1859 | 3·10 | 0·60 | 1·50 | 2·70 | 0·50 | 2·30 | 4·30 | 3·10 | 4·50 | ... | ... | 0·60 | 23·20 |
| 1860 | 1·20 | 2·90 | 1·10 | ... | 0·70 | 1·20 | 5·40 | 5·10 | 0·70 | ... | ... | ... | 18·30 |
| 1861 | 2·20 | ... | 0·20 | ... | 1·30 | 2·00 | 10·20 | 9·00 | 1·50 | ... | ... | 0·40 | 26·80 |
| 1862 | 0·40 | 0·60 | 2·10 | 0·70 | 0·20 | 5·00 | 5·90 | 5·70 | 1·60 | ... | 0·10 | ... | 22·30 |
| 1863 | 3·40 | ... | 0·20 | ... | ... | 1·70 | 19·60 | 6·90 | 2·80 | 4·40 | ... | 1·00 | 40·00 |
| 1864 | 0·30 | 1·90 | 0·40 | 1·40 | 1·40 | ... | 9·90 | 11·30 | 0·60 | ... | ... | ... | 27·20 |
| 1865 | 1·10 | 3·60 | 4·10 | 0·30 | 0·50 | 0·60 | 4·00 | 12·20 | 2·60 | ... | ... | 1·70 | 30·70 |
| 1866 | 1·40 | 1·80 | ... | 0·50 | ... | 4·30 | 11·50 | 8·00 | ... | ... | ... | ... | 27·50 |
| 1867 | 0·10 | 0·30 | 0·60 | 0·70 | 6·50 | 2·50 | 4·60 | 13·00 | 3·90 | ... | ... | 0·10 | 32·30 |
| 1868 | 1·00 | 2·00 | 1·80 | 0·40 | 0·80 | 1·00 | 4·80 | 3·20 | 1·00 | ... | ... | 0·30 | 16·30 |
| 1869 | 2·40 | 0·40 | 3·90 | ... | ... | 2·30 | 14·40 | 1·70 | 7·10 | ... | ... | ... | 32·20 |
| 1870 | 0·30 | 0·40 | 1·20 | 0·50 | ... | 1·00 | 5·80 | 9·40 | 2·80 | 0·20 | ... | 0·50 | 22·10 |
| 1871 | 0·10 | 3·90 | ... | 0·20 | 1·40 | 6·90 | 5·00 | 1·20 | 1·00 | ... | ... | 1·10 | 20·80 |
| 1872 | 1·60 | 1·00 | 0·70 | 0·10 | 1·30 | 1·80 | 19·60 | 17·30 | 1·20 | 0·10 | ... | 0·60 | 45·30 |
| 1873 | 0·50 | ... | ... | 0·10 | 0·10 | 0·40 | 7·20 | 6·30 | 4·60 | 0·50 | ... | ... | 19·70 |
| 1874 | 2·20 | 2·10 | 1·30 | ... | ... | 4·50 | 3·50 | 2·80 | 6·80 | ... | ... | ... | 23·20 |
| 1875 | ... | 2·40 | ... | ... | 2·40 | 0·80 | 7·10 | 17·80 | 24·10 | 0·80 | ... | 0·30 | 55·70 |
| 1876 | 0·40 | 1·30 | 2·20 | 2·70 | 0·10 | 1·50 | 12·40 | 3·30 | 2·70 | 0·50 | ... | ... | 27·10 |
| 1877 | 4·30 | 4·50 | 1·80 | 1·60 | 0·40 | 1·60 | 2·70 | 1·50 | 12·10 | 0·80 | 1·40 | 6·90 | 39·60 |
| 1878 | 0·50 | 2·60 | 0·10 | 1·30 | 4·30 | 0·50 | 9·30 | 23·20 | 1·00 | ... | ... | ... | 42·80 |
| 1879 | ... | ... | 2·10 | ... | ... | 4·70 | 5·30 | 6·20 | ... | ... | ... | 0·80 | 19·10 |
| 1880 | 0·60 | 2·60 | ... | ... | 0·50 | 8·90 | 17·20 | 3·70 | 1·77 | ... | 0·40 | 0·60 | 36·27 |
| 1881 | ... | 0·70 | 5·70 | 0·30 | 0·40 | 3·80 | 16·60 | 6·66 | 0·47 | ... | ... | ... | 34·63 |
| 1882 | 2·60 | 2·12 | ... | ... | ... | 2·21 | 8·90 | 4·40 | 3·96 | ... | ... | ... | 24·19 |
| 1883 | 2·90 | 0·20 | 0·56 | 0·11 | 0·54 | 0·36 | 1·00 | 1·10 | 5·80 | ... | ... | 0·60 | 13·17 |
| Mean | 1·34 | 1·37 | 1·24 | 0·64 | 0·84 | 2·43 | 8·38 | 7·27 | 3·68 | 0·51 | 0·10 | 0·54 | 28·34 |
| 1884 | 0·20 | ... | 1·10 | ... | 0·20 | 3·50 | 12·60 | 3·60 | 4·30 | ... | ... | ... | 25·50 |
| 1885 | 3·30 | 0·20 | 1·20 | 1·20 | 1·80 | 0·70 | 5·10 | 6·70 | 0·70 | ... | ... | 3·60 | 24·50 |
| 1886 | 3·10 | ... | 3·20 | 0·80 | ... | 2·60 | 9·50 | 6·30 | 0·40 | 1·20 | ... | 1·30 | 28·40 |
| Mean | 1·41 | 1·26 | 1·29 | 0·64 | 0·82 | 2·42 | 8·44 | 7·12 | 3·51 | 0·50 | 0·09 | 0·64 | 28·14 |

No. 39. LUDHIANA.

Latitude N. 30° 55′. Longitude E. 75° 54′ Elevation 812 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1850 | ? | ? | ? | 2·14 | ... | 4·00 | ? | ? | ? | ? | ? | ? | ? |
| 1851 | ? | ? | ? | ? | ? | ? | ? | ? | ... | ... | ? | 0·25 | ? |
| 1852 | ? | 0·88 | 7·12 | ... | 4·50 | 3·75 | 8·37 | 13·00 | 1·12 | ? | ? | ? | ? |
| 1853 | ... | ... | ... | 0·75 | 3·74 | 1·53 | 8·29 | 0·80 | 0·20 | 9·54 | ... | ... | 24·85 |
| 1854 | 1·18 | 0·53 | ... | ... | 0·30 | 1·98 | 4·38 | 2·69 | 2·20 | 4·83 | ... | 1·18 | 19·27 |
| 1855 | 1·32 | ... | 2·41 | 1·95 | ... | 1·04 | 6·69 | 1·53 | 3·74 | 0·17 | ... | ... | 18·85 |
| 1856 | 0·57 | 0·32 | ... | ... | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1857 to 1861 | Not on record. | | | | | | | | | | | | |
| 1862 | ? | ? | ? | ... | 0·50 | 2·20 | 5·00 | 10·50 | 0·60 | 0·50 | ... | ... | ? |
| 1863 | 2·10 | 0·10 | 0·50 | ... | ... | 2·10 | 23·00 | 10·40 | 0·70 | 6·20 | ... | 0·50 | 45·60 |
| 1864 | 0·50 | 1·30 | 0·10 | 1·20 | 1·90 | 3·10 | 8·10 | 6·20 | 1·30 | ... | ... | 0·20 | 23·90 |
| 1865 | 0·90 | 3·50 | 2·40 | 0·70 | ... | 0·90 | 2·30 | 6·30 | 6·00 | ... | ... | 2·90 | 25·90 |
| 1866 | 1·70 | 1·30 | ... | 0·40 | ... | 5·10 | 9·00 | 6·70 | 0·30 | 0·10 | ... | ... | 24·60 |
| 1867 | 0·80 | 0·30 | 0·70 | 1·40 | 2·80 | 1·40 | 4·10 | 7·30 | 0·80 | ... | ... | ... | 19·60 |
| 1868 | 1·00 | 0·70 | 2·20 | 0·60 | 0·70 | 0·30 | 3·00 | 2·90 | 4·60 | ... | ... | ... | 16·00 |
| 1869 | 1·80 | 0·40 | 6·70 | ... | ... | 1·10 | 16·40 | 1·40 | 10·30 | 1·20 | ... | ... | 39·30 |
| 1870 | 0·10 | 0·10 | 1·80 | ... | 0·10 | 2·70 | 4·20 | 7·40 | 2·30 | ... | ... | 0·40 | 19·10 |
| 1871 | ... | 4·10 | ... | 0·30 | 0·30 | 7·60 | 3·50 | 1·10 | 0·50 | ... | ... | 0·80 | 18·20 |
| 1872 | 2·10 | 0·20 | 0·50 | 1·80 | 0·70 | 2·20 | 19·70 | 15·50 | 2·60 | ... | ... | 0·90 | 46·20 |
| 1873 | 0·40 | ... | 1·60 | ... | 4·00 | 0·10 | 11·10 | 5·00 | 2·50 | 1·10 | ... | ... | 25·80 |
| 1874 | 2·30 | 1·30 | 0·60 | 0·10 | 0·20 | 1·90 | 7·00 | 1·70 | 2·60 | ... | ... | ... | 17·70 |
| 1875 | ... | 1·40 | ... | ... | 1·77 | 0·46 | 5·01 | 9·47 | 16·41 | 1·23 | ... | 0·43 | 36·18 |
| 1876 | 0·15 | 0·55 | 2·36 | 0·16 | 1·22 | ... | 6·87 | 2·72 | 0·88 | 0·72 | ... | ... | 15·63 |
| 1877 | 2·62 | 2·66 | 2·35 | 1·10 | 0·84 | ... | 5·23 | 2·90 | 12·04 | 2·21 | 1·02 | 6·29 | 39·26 |
| 1878 | 1·10 | 1·18 | 0·33 | 4·52 | 2·93 | 0·35 | 9·93 | 15·20 | 1·76 | ... | ... | 0·33 | 37·63 |
| 1879 | 0·60 | ... | 2·44 | 0·18 | 0·55 | 8·74 | 2·65 | 4·53 | 1·11 | ... | ... | 0·85 | 21·65 |
| 1880 | 0·26 | 3·93 | ... | ... | 0·10 | 6·14 | 26·32 | 3·75 | 0·38 | ... | ... | 0·47 | 41·35 |
| 1881 | 0·75 | 2·12 | 3·07 | 0·54 | 0·28 | 2·92 | 14·56 | 8·34 | 0·35 | ... | ... | ... | 32·93 |
| 1882 | 2·72 | 0·67 | ... | 1·83 | 0·15 | 0·33 | 12·54 | 4·89 | 1·51 | ... | ... | 0·10 | 24·74 |
| 1883 | 3·44 | 0·43 | 0·93 | 0·10 | 1·00 | 1·52 | 12·66 | 0·40 | 13·21 | ... | 0·72 | 0·75 | 35·16 |
| Mean | 1·25 | 1·30 | 1·67 | 0·94 | 1·21 | 2·33 | 9·75 | 6·59 | 4·38 | 1·17 | 0·10 | 0·87 | 31·56 |
| 1884 | 0·25 | 0·62 | 0·30 | 0·08 | 0·38 | 2·14 | 10·93 | 2·43 | 8·90 | 1·64 | ... | 0·03 | 27·90 |
| 1885 | 3·26 | 0·37 | 0·09 | 2·17 | 2·97 | 2·61 | 3·71 | 11·52 | 1·79 | ... | ... | 2·20 | 30·69 |
| 1886 | 2·98 | 0·27 | 3·11 | 0·07 | 0·45 | 1·85 | 14·45 | 4·26 | 0·92 | 2·57 | 0·42 | 0·67 | 32·02 |
| Mean | 1·35 | 1·21 | 1·62 | 0·92 | 1·22 | 2·32 | 9·74 | 6·54 | 4·33 | 1·20 | 0·11 | 0·88 | 31·44 |

No. 40. UMBALLA.

Latitude N. 30° 21′. Longitude E. 76° 52′. Elevation 902 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1850 | P | P | P | 1·85 | ... | 2·20 | 4·60 | 14·70 | 3·15 | ... | 0·25 | 2·00 | P |
| 1851 | 2·15 | 7·15 | P | P | P | 1·30 | 7·85 | 2·35 | 0·60 | ... | 2·25 | 0·15 | P |
| 1852 | 0·57 | 0·92 | 7·27 | 0·95 | 2·35 | 4·80 | 10·57 | 25·90 | 1·82 | ... | 0·62 | 0·10 | 55·87 |
| 1853 | 0·65 | 0·10 | 0·12 | 0·27 | 0·55 | 2·50 | 30·50 | 3·72 | 0·37 | 3·12 | ... | ... | 41·90 |
| 1854 | 0·45 | 1·45 | 0·07 | 0·05 | 0·47 | 3·42 | 8·86 | 14·21 | 5·17 | 1·95 | ... | 2·00 | 38·10 |
| 1855 | 0·60 | ... | 2·60 | 1·80 | 0·02 | 1·80 | 17·40 | 3·70 | 4·50 | ... | ... | ... | 32·42 |
| 1856 | 0·40 | 0·60 | ... | ... | 1·00 | 6·40 | 10·10 | 15·00 | 7·60 | ... | ... | 0·20 | 41·30 |
| 1857 | 2·80 | 1·20 | ... | 1·30 | 1·00 | 2·00 | 12·10 | 4·90 | 5·30 | 2·40 | 1·50 | ... | 34·50 |
| 1858 | 1·40 | 1·60 | 0·10 | ... | 0·40 | 2·70 | 10·20 | 8·00 | 12·20 | ... | 0·20 | 1·10 | 37·90 |
| 1859 | 1·70 | 2·60 | 1·60 | 2·10 | 1·10 | 7·20 | 3·50 | 5·90 | 4·10 | ... | ... | 1·10 | 30·90 |
| 1860 | 2·00 | 0·90 | 0·50 | 0·10 | 0·90 | 1·30 | 18·00 | 8·30 | 1·10 | ... | ... | ... | 33·10 |
| 1861 | 1·90 | ... | 1·20 | ... | 1·80 | 5·10 | 9·80 | 11·70 | 0·50 | ... | ... | 0·20 | 32·20 |
| 1862 | 0·60 | ... | 1·70 | 0·40 | 3·60 | 3·40 | 15·20 | 5·40 | 5·50 | ... | ... | ... | 35·80 |
| 1863 | 1·90 | 0·20 | 1·20 | ... | 0·10 | 14·80 | 22·10 | 10·20 | 0·30 | 6·00 | 0·50 | 0·50 | 57·80 |
| 1864 | 0·90 | 1·80 | 0·50 | 0·90 | 0·40 | 1·10 | 14·50 | 5·60 | 2·50 | ... | ... | ... | 28·20 |
| 1865 | 0·40 | 2·80 | 3·00 | 0·30 | 2·90 | 0·80 | 3·30 | 18·50 | 11·50 | ... | ... | 5·20 | 48·70 |
| 1866 | 9·60 | 4·30 | ... | ... | ... | 4·00 | 8·30 | 9·90 | ... | 0·60 | ... | ... | 36·70 |
| 1867 | 0·30 | ... | 0·40 | ... | 0·90 | 0·60 | 15·30 | 18·20 | 1·90 | 0·70 | ... | ... | 38·30 |
| 1868 | 0·20 | 2·90 | 2·30 | 3·90 | 3·60 | 1·00 | 3·90 | 1·10 | 0·90 | ... | ... | ... | 19·80 |
| 1869 | 3·30 | 0·60 | 3·60 | ... | ... | ... | 12·40 | ... | 8·30 | ... | ... | 0·10 | 28·30 |
| 1870 | ... | ... | 2·20 | 2·90 | ... | 9·30 | 4·50 | 9·20 | 6·50 | 0·70 | ... | ... | 35·30 |
| 1871 | 0·70 | 3·80 | ... | ... | 1·00 | 12·10 | 11·90 | 8·10 | 0·40 | ... | ... | 0·50 | 38·50 |
| 1872 | 0·20 | 1·40 | 0·50 | 0·20 | 0·50 | 8·10 | 19·70 | 15·20 | 4·90 | ... | ... | 0·30 | 51·00 |
| 1873 | 0·20 | ... | ... | ... | 0·90 | ... | 26·20 | 7·60 | 7·20 | ... | ... | 1·60 | 43·70 |
| 1874 | 0·40 | 0·90 | 1·70 | ... | 1·30 | 10·50 | 19·50 | 2·50 | 3·40 | ... | ... | 0·40 | 40·60 |
| 1875 | 0·10 | 2·90 | ... | ... | 0·20 | 0·80 | 4·20 | 12·50 | 12·80 | ... | ... | 0·30 | 33·80 |
| 1876 | ... | 0·10 | 0·60 | 0·90 | 2·00 | 2·20 | 10·00 | 4·60 | 6·50 | 1·60 | ... | ... | 28·50 |
| 1877 | 3·80 | 3·20 | 0·50 | 0·80 | 0·20 | 2·90 | 2·80 | 1·10 | 2·00 | 1·30 | 0·70 | 4·40 | 23·70 |
| 1878 | 2·00 | 4·40 | 0·40 | 2·50 | 2·70 | 0·20 | 8·70 | 13·90 | 2·60 | 0·10 | ... | 1·50 | 39·00 |
| 1879 | 0·20 | 1·00 | 1·30 | ... | ... | 8·10 | 4·00 | 8·10 | 0·50 | ... | ... | 0·70 | 23·90 |
| 1880 | 0·50 | 3·80 | ... | ... | 1·00 | 8·60 | 20·30 | 1·60 | 3·90 | ... | 0·10 | 0·50 | 40·30 |
| 1881 | 0·20 | 0·40 | 1·80 | 0·50 | 1·10 | 3·10 | 9·70 | 7·30 | 1·90 | ... | ... | ... | 26·00 |
| 1882 | 2·70 | 1·30 | ... | 0·50 | 0·40 | ... | 6·60 | 5·30 | 3·30 | ... | ... | ... | 20·10 |
| 1883 | 2·20 | ... | 0·30 | ... | 1·40 | 1·20 | 6·20 | 0·80 | 5·00 | ... | 1·90 | 0·10 | 19·10 |
| Mean | 1·36 | 1·59 | 1·11 | 0·67 | 1·02 | 3·93 | 11·55 | 8·38 | 4·07 | 0·54 | 0·24 | 0·68 | 35·14 |
| 1884 | 0·10 | ... | 0·05 | ... | ... | 2·10 | 15·30 | 13·60 | 12·40 | 1·90 | ... | ... | 45·45 |
| 1885 | 3·10 | ... | ... | ... | 1·80 | 8·80 | 5·20 | 11·20 | 0·40 | ... | ... | 1·58 | 32·08 |
| 1886 | 2·56 | 0·12 | 1·87 | ... | 1·56 | 4·64 | 15·00 | 8·36 | 1·85 | 0·80 | ... | 0·10 | 36·86 |
| Mean | 1·41 | 1·46 | 1·07 | 0·62 | 1·03 | 4·03 | 11·58 | 8·60 | 4·13 | 0·57 | 0·22 | 0·67 | 35·39 |

No. 41. KARNAL.

Latitude N. 29° 42'. Longitude E. 77° 2'. Elevation 809 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | 1·70 | 4·15 | 14·90 | 5·00 | ... | ... | ... | 0·20 | ? |
| 1845 | ... | 4·15 | ... | ... | ... | 3·70 | 18·95 | 7·80 | 0·20 | ... | ... | ... | 34·80 |
| 1846 | ... | ... | ... | ... | ... | 7·32 | 12·79 | 2·75 | 3·30 | ... | ... | ... | 26·16 |
| 1847 | 1·25 | 1·10 | ... | ... | 0·10 | 11·50 | 9·51 | 2·44 | 4·20 | 1·71 | 0·40 | ... | 32·21 |
| 1848 | ... | 1·30 | ... | ... | 3·78 | ? | 4·65 | 10·83 | ... | 1·22 | ... | 0·46 | ? |
| 1849 | 3·82 | ... | ... | 0·20 | 0·30 | 3·08 | 2·60 | 17·20 | 3·85 | ... | 0·46 | ... | 31·51 |
| 1850 | 1·46 | 5·12 | 0·80 | 1·00 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1851 to 1861 | Not on record. | | | | | | | | | | | | |
| 1862 | ? | ? | ? | 0·10 | ... | 0·70 | 16·00 | 3·80 | 11·40 | 0·20 | 0·10 | ... | ? |
| 1863 | 1·90 | ... | 1·00 | 0·80 | ... | 7·40 | 23·80 | 10·10 | 2·60 | 2·50 | 0·20 | 0·20 | 50·50 |
| 1864 | 0·20 | 0·90 | 0·20 | 0·90 | 1·00 | 0·30 | 5·40 | 8·60 | 2·40 | ... | ... | 0·10 | 20·00 |
| 1865 | 0·70 | 1·20 | 4·50 | 0·50 | 0·40 | 1·60 | 4·70 | 11·00 | 4·60 | ... | ... | 1·60 | 30·80 |
| 1866 | 2·60 | 0·40 | ... | 0·20 | ... | 3·20 | 6·90 | 4·70 | 0·20 | 0·90 | ... | ... | 19·10 |
| 1867 | 0·20 | 0·20 | 0·50 | 0·60 | 0·90 | 2·40 | 7·90 | 13·10 | 1·80 | ... | ... | 0·60 | 28·20 |
| 1868 | 1·80 | 0·10 | 1·00 | 0·70 | 0·10 | 1·10 | 4·60 | 0·10 | 1·30 | ... | ... | ... | 10·80 |
| 1869 | 3·10 | 1·10 | 4·20 | ... | ... | ... | 6·90 | 2·00 | 5·70 | 0·60 | ... | ... | 23·60 |
| 1870 | ... | 0·50 | 3·20 | 0·70 | 0·80 | 8·20 | 4·60 | 5·80 | 5·00 | ... | ... | ... | 28·80 |
| 1871 | 1·10 | 4·60 | ... | 0·40 | 1·90 | 9·10 | 10·50 | 3·40 | 1·40 | ... | ... | 0·90 | 33·30 |
| 1872 | 4·50 | 0·10 | 0·90 | 0·20 | 0·60 | 8·10 | 12·70 | 7·30 | 2·10 | 0·10 | ... | 0·90 | 37·50 |
| 1873 | 0·60 | 0·10 | 0·30 | ... | 3·60 | 1·10 | 21·30 | 7·20 | 6·10 | 0·20 | ... | 0·50 | 41·00 |
| 1874 | 0·50 | 0·40 | 1·80 | ... | 0·90 | 7·60 | 18·70 | 3·50 | 7·10 | ... | ... | 0·40 | 40·90 |
| 1875 | 0·30 | 4·70 | ... | ... | 2·40 | 0·40 | 7·90 | 8·60 | 14·10 | ... | ... | ... | 38·40 |
| 1876 | ... | ... | 2·00 | 0·80 | 1·20 | 0·50 | 9·10 | 3·50 | 1·50 | 1·40 | ... | ... | 20·00 |
| 1877 | 2·70 | 3·00 | 1·10 | 0·80 | 3·00 | 6·50 | 2·70 | 0·80 | 0·80 | 2·10 | 0·40 | 3·10 | 27·00 |
| 1878 | 1·30 | 1·60 | 0·90 | 4·60 | 2·00 | 0·40 | 2·80 | 10·30 | 1·80 | ... | ... | 0·90 | 26·60 |
| 1879 | ... | 0·90 | 0·60 | ... | ... | 3·20 | 8·50 | 8·40 | 1·30 | ... | ... | 0·30 | 23·20 |
| 1880 | 0·10 | 1·80 | ... | ... | 0·50 | 10·60 | 12·10 | 0·70 | 4·80 | ... | 0·10 | 0·90 | 31·60 |
| 1881 | ... | 0·30 | 1·90 | 0·30 | 1·40 | 3·30 | 8·30 | 7·00 | ... | ... | ... | ... | 22·50 |
| 1882 | 2·40 | 2·00 | ... | 1·70 | 0·60 | 2·60 | 7·40 | 3·10 | 5·10 | ... | ... | ... | 24·90 |
| 1883 | 2·90 | 0·10 | 1·40 | 0·10 | 1·10 | 3·00 | 3·60 | 0·60 | 7·50 | ... | 0·75 | 0·40 | 21·45 |
| Mean | 1·24 | 1·32 | 0·97 | 0·52 | 1·01 | 4·11 | 9·64 | 6·06 | 3·58 | 0·39 | 0·09 | 0·41 | 29·34 |
| 1884 | ... | ... | 0·50 | ... | 0·50 | 5·70 | 3·60 | 15·60 | 13·40 | 1·40 | ... | ... | 40·70 |
| 1885 | 3·40 | 0·70 | 0·40 | ... | 2·20 | 7·50 | 10·60 | 9·50 | ... | ... | ... | 1·10 | 35·40 |
| 1886 | 1·00 | 0·20 | 1·10 | 0·40 | 2·00 | 7·10 | 13·60 | 4·20 | 0·20 | 0·50 | ... | 0·60 | 30·90 |
| Mean | 1·26 | 1·22 | 0·94 | 0·48 | 1·06 | 4·38 | 9·60 | 6·42 | 3·67 | 0·41 | 0·08 | 0·42 | 29·94 |

No. 42. SIRSA.

Latitude N. 29° 32′. Longitude E. 75° 6′. Elevation 662 feet.

Administration: PUNJAB. Rainfall Province No. II.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | ... | 0·40 | 2·22 | 1·28 | 0·30 | ... | 0·02 | ... | ? |
| 1845 | ... | 0·45 | 0·10 | 0·10 | 0·60 | 3·50 | 4·05 | 10·29 | ... | ... | ... | ... | 19·09 |
| 1846 | ... | ... | ... | 0·65 | 0·05 | 4·16 | 1·81 | 0·10 | 4·50 | ... | ... | ... | 11·27 |
| 1847 | 1·80 | 0·40 | ... | 0·16 | ... | 6·27 | 4·56 | 3·10 | 1·30 | 0·10 | ... | ... | 17·69 |
| 1848 | 0·15 | 0·52 | 0·15 | ... | 1·75 | 5·73 | 0·20 | 0·30 | 0·30 | ... | ... | ... | 9·10 |
| 1849 | 2·50 | ... | 0·30 | ... | 0·20 | 1·35 | 2·20 | 6·64 | 0·92 | ... | ... | ... | 14·11 |
| 1850 | 1·54 | ... | ... | 0·70 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1851 | ... | 0·11 | 0·15 | 0·14 | 0·50 | 2·00 | 16·00 | ? | ? | ? | ? | ? | ? |
| 1852 to 1857 | Not on record. | | | | | | | | | | | | |
| 1858 | ? | ? | ? | ? | 0·10 | 0·90 | 5·70 | 1·20 | 0·80 | 0·80 | ... | 0·10 | ? |
| 1859 | 1·10 | ... | 0·10 | 2·60 | 0·60 | 2·60 | 0·50 | 3·30 | 2·50 | ... | ... | ... | 13·30 |
| 1860 | 1·50 | 0·80 | ... | 0·10 | 0·60 | 1·00 | 2·60 | 3·00 | ... | ... | ... | ... | 9·60 |
| 1861 | 1·30 | ... | ... | ... | 0·70 | 2·90 | 4·10 | 4·10 | 1·90 | ... | ... | 0·40 | 15·40 |
| 1862 | ... | 1·00 | ... | ... | 0·30 | 3·60 | 4·30 | 5·00 | 1·30 | 0·70 | ... | ... | 16·20 |
| 1863 | 1·70 | ... | 3·10 | 0·20 | 0·40 | 1·90 | 6·90 | 7·60 | 2·10 | ... | ... | 0·70 | 24·60 |
| 1864 | 0·10 | ... | ... | 1·90 | 2·70 | 0·90 | 0·50 | 4·10 | 0·90 | ... | ... | ... | 11·10 |
| 1865 | 0·40 | 1·50 | 1·20 | 0·60 | 0·30 | 0·40 | 2·80 | 3·60 | 9·10 | ... | ... | 1·00 | 20·90 |
| 1866 | 0·60 | 0·20 | ... | 0·20 | 0·20 | 2·30 | 1·10 | 9·70 | 0·20 | 0·40 | ... | ... | 14·90 |
| 1867 | ... | ... | 0·70 | 0·40 | 0·10 | 0·80 | 3·00 | 8·10 | 1·70 | ... | ... | 0·80 | 15·60 |
| 1868 | 0·10 | 0·70 | 0·10 | 0·10 | 0·40 | 3·90 | 1·30 | 0·30 | 0·60 | ... | ... | ... | 7·50 |
| 1869 | 0·90 | 0·30 | 1·70 | ... | ... | 2·00 | 1·70 | 0·80 | 6·30 | ... | ... | ... | 13·70 |
| 1870 | ... | ... | 1·80 | 0·50 | ... | 5·10 | 0·80 | 3·10 | ... | ... | ... | 0·10 | 11·40 |
| 1871 | 0·40 | 2·00 | ... | 0·40 | 1·50 | 4·60 | 0·60 | 0·40 | 0·90 | ... | ... | 0·90 | 11·70 |
| 1872 | 1·40 | ... | 0·20 | 0·20 | 0·90 | 2·20 | 7·00 | 4·60 | 1·50 | ... | ... | 1·70 | 19·70 |
| 1873 | ... | ... | ... | ... | 1·50 | 1·30 | 4·00 | 3·50 | 1·10 | 0·70 | ... | 0·30 | 12·40 |
| 1874 | 0·70 | 0·50 | 2·20 | ... | ... | 0·90 | 3·80 | 4·80 | 1·00 | ... | ... | ... | 13·90 |
| 1875 | ... | 0·50 | ... | ... | 0·40 | 0·30 | 4·90 | 3·00 | 9·50 | 0·70 | ... | ... | 19·30 |
| 1876 | ... | ... | 0·60 | 0·20 | 1·10 | 1·20 | 6·00 | ... | 4·60 | 3·80 | ... | ... | 17·50 |
| 1877 | 0·99 | 0·67 | 0·57 | 0·64 | 0·88 | 1·44 | 1·96 | ... | 1·85 | ... | 0·66 | 3·13 | 12·79 |
| 1878 | ... | 0·32 | ... | 3·23 | 2·74 | 2·12 | 2·81 | 8·45 | 0·19 | ... | ... | 0·92 | 20·78 |
| 1879 | ... | 0·10 | 0·52 | ... | ... | 1·12 | 1·34 | 5·39 | 1·38 | ... | ... | 0·72 | 10·57 |
| 1880 | ... | 0·36 | ... | ... | 0·08 | 3·22 | 0·97 | 0·11 | 0·75 | ... | ... | 0·68 | 6·17 |
| 1881 | 0·06 | ... | 2·16 | 0·72 | 0·26 | 0·28 | 11·76 | 7·58 | 0·02 | ... | ... | ... | 22·84 |
| 1882 | 2·53 | 0·18 | ... | 0·01 | 0·22 | 1·27 | 5·67 | 0·46 | 3·40 | ... | ... | ... | 13·74 |
| 1883 | 1·98 | ... | 1·60 | 0·05 | 1·83 | 1·28 | 3·22 | ... | 7·15 | 0·04 | 0·21 | ... | 17·36 |
| Mean | 0·68 | 0·33 | 0·54 | 0·43 | 0·63 | 2·21 | 3·65 | 3·56 | 2·13 | 0·23 | 0·03 | 0·36 | 14·78 |
| 1884 | 0·14 | 0·07 | 0·08 | 0·10 | 0·15 | 4·91 | 4·14 | 2·58 | 2·19 | 2·18 | 0·27 | 0·01 | 16·82 |
| 1885 | 2·75 | 0·05 | 0·02 | 0·45 | 2·10 | 0·55 | 1·66 | 5·58 | 0·37 | 0·26 | ... | 0·60 | 14·39 |
| 1886 | 0·74 | ... | 0·05 | 0·03 | 0·35 | 3·16 | 5·87 | 2·19 | 0·05 | 0·55 | 0·02 | 0·02 | 13·03 |
| Mean | 0·73 | 0·31 | 0·50 | 0·41 | 0·65 | 2·27 | 3·67 | 3·55 | 2·02 | 0·29 | 0·03 | 0·34 | 14·77 |

No. 43. HISSAR.

Latitude N. 29° 10′. Longitude E. 75° 46′. Elevation 689 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | 0·54 | 0·62 | 6·34 | 4·38 | ... | ... | ... | 0·12 | ? |
| 1845 | 0·08 | 1·79 | 0·60 | ... | ... | 0·52 | 2·99 | 6·08 | 0·91 | ... | ... | ... | 12·97 |
| 1846 | 0·08 | ... | 0·02 | ... | 1·09 | 4·44 | 5·36 | 0·76 | 3·08 | 0·63 | ... | ... | 15·46 |
| 1847 | 1·14 | 0·69 | ... | 0·44 | 0·35 | 1·88 | 3·08 | 1·96 | 3·19 | 0·28 | ... | ... | 13·01 |
| 1848 | 0·08 | ... | ... | ... | 1·26 | 5·40 | 1·71 | 0·65 | 0·05 | ... | ... | 0·11 | 9·26 |
| 1849 | 1·13 | ... | 0·31 | 0·12 | ... | 1·90 | ... | 1·50 | 6·23 | ... | ... | ... | 11·19 |
| 1850 | 0·46 | ... | ... | ... | ... | 1·38 | 2·06 | 5·72 | 1·07 | ... | ... | 0·73 | 11·42 |
| 1851 | 0·54 | 1·04 | 0·53 | ... | 0·15 | 0·71 | 7·12 | 1·35 | ... | ... | 0·62 | ... | 12·06 |
| 1852 | ... | ... | 4·73 | 0·58 | 2·43 | 2·49 | 2·17 | 6·75 | 0·49 | 0·21 | 0·06 | 0·09 | 20·00 |
| 1853 | 0·06 | ... | 0·11 | 0·15 | 0·23 | 0·81 | 3·92 | 0·63 | 0·21 | 3·56 | ... | ... | 9·68 |
| 1854 | 0·13 | 0·69 | ... | ... | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1855 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | ? | ? | ? | ? | 1·80 | 2·30 | 3·50 | 6·40 | 2·60 | ... | ... | ... | ? |
| 1862 | ... | ... | 0·20 | 0·40 | 0·60 | 4·90 | 7·60 | 3·70 | ... | 2·00 | 0·50 | 0·10 | 20·00 |
| 1863 | 1·70 | ... | 0·40 | ... | 1·00 | 3·60 | 11.30 | 7·60 | ... | 0·70 | ... | 0·10 | 26·40 |
| 1864 | 0·50 | ... | ... | 1·30 | 1·80 | 0·40 | 1·00 | 4·50 | 1·70 | ... | ... | ... | 11·20 |
| 1865 | 0·90 | 2·00 | 0·70 | 0·50 | 0·30 | 1·50 | 3·50 | 10·10 | 7·30 | ... | ... | 2·40 | 29·20 |
| 1866 | 2·70 | 0·50 | ... | 0·30 | ... | 1·10 | 5·20 | 3·80 | 0·10 | 0·30 | ... | ... | 14·00 |
| 1867 | ... | 0·30 | 0·90 | ... | 0·50 | 0·90 | 10·30 | 7·40 | 0·40 | ... | ... | 1·20 | 21·90 |
| 1868 | 0·40 | 0·50 | 0·70 | 0·40 | ... | 1·60 | 3·20 | ... | ... | ... | ... | ... | 6·80 |
| 1869 | 1·10 | 0·60 | 1·80 | ... | 0·20 | ... | 2·50 | 1·80 | 5·10 | ... | ... | ... | 13·10 |
| 1870 | ... | ... | 1·10 | 0·10 | 0·20 | 6·90 | 3·40 | 6·90 | 0·80 | ... | ... | 0·60 | 20·00 |
| 1871 | ... | 1·20 | ... | ... | 0·20 | 4·50 | 1·70 | ... | 0·70 | ... | ... | 1·10 | 9·40 |
| 1872 | 1·60 | 0·10 | 0·80 | 0·30 | 0·90 | 3·00 | 10·00 | 10·20 | 2·70 | ... | ... | 1·20 | 30·80 |
| 1873 | ... | ... | 0·20 | ... | 1·20 | 0·40 | 4·10 | 3·20 | 1·20 | 0·80 | ... | 0·20 | 11·30 |
| 1874 | 0·40 | ... | 1·00 | ... | 0·70 | 1·50 | 3·70 | 2·10 | 0·70 | ... | ... | ... | 10·10 |
| 1875 | 0·10 | 2·10 | ... | ... | 0·30 | 0·40 | 4·50 | 5·90 | 11·80 | 0·10 | ... | ... | 25·20 |
| 1876 | ... | ... | 0·30 | ... | 1·00 | 1·30 | 12·60 | ... | 3·70 | 1·90 | ... | ... | 20·80 |
| 1877 | 0·20 | 1·70 | 2·00 | 1·70 | 2·30 | 3·50 | 2·40 | 0·50 | ... | ... | 0·90 | 1·20 | 16·40 |
| 1878 | 0·70 | 0·50 | ... | 1·20 | 1·70 | 1·40 | 4·30 | 10·60 | ... | ... | ... | ... | 20·40 |
| 1879 | ... | 0·10 | 0·30 | ... | 0·20 | 0·90 | 0·40 | 7·30 | 1·40 | ... | ... | 2·00 | 12·60 |
| 1880 | ... | 0·30 | ... | ... | ... | 2·40 | 7·30 | 1·70 | 1·30 | ... | ... | 0·70 | 13·70 |
| 1881 | ... | 0·30 | 0·70 | 1·50 | 0·10 | 0·20 | 7·50 | 5·70 | 0·10 | ... | ... | ... | 16·10 |
| 1882 | 2·70 | 0·50 | ... | 0·10 | ... | 0·30 | 9·80 | 0·30 | 1·90 | ... | ... | ... | 15·60 |
| 1883 | 1·90 | ... | 1·20 | ... | 1·40 | 0·70 | 4·00 | 0·10 | 2·00 | 0·20 | 0·20 | ... | 11·70 |
| Mean | 0·58 | 0·47 | 0·58 | 0·28 | 0·68 | 1·93 | 4·50 | 3·93 | 1·84 | 0·32 | 0·07 | 0·36 | 15·54 |
| 1884 | 0·20 | ... | ... | ... | ... | 3·20 | 4·50 | 1·20 | 5·30 | 0·30 | ... | ... | 14·70 |
| 1885 | 2·40 | ... | ... | 0·10 | 1·80 | 1·70 | 4·50 | 9·00 | 0·40 | ... | ... | 4·60 | 24·50 |
| 1886 | 1·30 | ... | 2·50 | ... | 0·40 | 3·60 | 10·30 | 4·60 | ... | 0·40 | ... | ... | 23·10 |
| Mean | 0·64 | 0·43 | 0·60 | 0·26 | 0·68 | 2·01 | 4·66 | 4·01 | 1·85 | 0·32 | 0·06 | 0·46 | 15·98 |

No. 44. ROHTAK.

Latitude N. 28° 54′. Longitude E. 76° 38′. Elevation 712 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | ... | 1·00 | 1·09 | 6·93 | ... | ... | ... | ... | ? |
| 1845 | ... | 2·10 | 0·32 | 0·04 | ... | 2·25 | 13·19 | 13·14 | ... | ... | ... | ... | 31·04 |
| 1846 | ... | ... | 0·70 | ... | ... | 12·68 | 3·45 | 0·62 | 3·00 | 1·75 | ... | ... | 22·20 |
| 1847 | 0·96 | 1·44 | ... | ... | ... | 4·19 | 9·46 | 5·70 | 0·96 | ... | ... | ... | 22·71 |
| 1848 | 0·94 | 0·31 | ... | ... | 2·37 | 1·69 | 2·45 | 5·05 | ... | 1·01 | ... | 0·09 | 13·91 |
| 1849 | 4·73 | ... | ... | ... | 0·78 | 6·79 | 1·60 | 14·56 | 5·09 | ... | 0·28 | ... | 33·83 |
| 1850 | 1·51 | 0·09 | 0·32 | 0·69 | ... | 1·28 | 4·71 | 11·51 | 1·85 | ... | ... | 0·58 | 22·54 |
| 1851 | 1·75 | 1·99 | 0·08 | 0·71 | ... | 1·17 | 0·62 | 11·85 | 1·05 | ... | ... | ... | 19.22 |
| 1852 | ... | 0·44 | 2·88 | 0·45 | 1·50 | 3·00 | 1·60 | 7·90 | 0·50 | ... | ... | ... | 18·27 |
| 1853 | ? | ? | ? | 0·50 | 1·60 | 6·90 | 6·30 | 0·50 | ... | 4·60 | ... | ... | ? |
| 1854 | 0·60 | 0·70 | ... | ... | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1855 to 1861 | Not on record. | | | | | | | | | | | | |
| 1862 | ? | ? | ? | ... | 1·60 | 2·30 | 8·50 | 0·70 | 7·70 | ... | ... | ... | ? |
| 1863 | 1·20 | ... | 0·50 | 0·20 | 0·30 | 3·70 | 20·10 | 7·90 | 1·00 | 0·60 | ... | ... | 35·50 |
| 1864 | 0·10 | 0·90 | ... | 0·80 | 1·60 | 0·50 | 5·10 | 1·20 | 5·70 | ... | ... | ... | 15·90 |
| 1865 | 0·90 | 0·60 | 1·80 | 0·40 | 0·90 | 1·00 | 2·20 | 9·60 | 2·90 | ... | ... | 0·90 | 21·20 |
| 1866 | 1·20 | 0·30 | ... | 0·30 | 1·70 | 4·70 | 4·50 | 0·90 | ... | ... | ... | 0·10 | 13·70 |
| 1867 | 0·10 | ... | 1·30 | 1·20 | 1·60 | 0·60 | 5·70 | 9·80 | 2·50 | ... | ... | 1·10 | 23·90 |
| 1868 | 0·20 | 0·80 | 0·20 | ... | ... | 1·80 | 3·70 | 0·80 | 0·20 | 0·60 | ... | ... | 8·30 |
| 1869 | 0·70 | 0·30 | 2·10 | ... | ... | ... | 7·40 | 1·60 | 7·30 | 2·00 | ... | ... | 21·40 |
| 1870 | ... | ... | 0·40 | 0·20 | ... | 3·10 | 4·80 | 2·40 | 1·90 | 0·60 | ... | 0·50 | 13·90 |
| 1871 | ... | 2·20 | ... | 0·60 | 1·00 | 2·50 | 4·60 | 2·10 | 0·60 | ... | ... | 2·60 | 16·20 |
| 1872 | 0·40 | 0·30 | 1·10 | 0·30 | 0·70 | 2·00 | 12·30 | 6·60 | 3·30 | ... | ... | 0·90 | 27·90 |
| 1873 | 0·30 | ... | ... | ... | 0·40 | 0·40 | 10·30 | 1·50 | 4·10 | 0·50 | ... | ... | 17·50 |
| 1874 | ... | 0·40 | 1·50 | ... | ... | 5·20 | 6·40 | 0·60 | 1·00 | ... | ... | ... | 15·10 |
| 1875 | ... | 1·50 | ... | ... | 0·30 | 0·10 | 2·50 | 3·70 | 22·00 | ... | ... | ... | 30·10 |
| 1876 | ... | ... | 0·40 | 0·10 | 0·80 | 3·30 | 8·10 | ... | 3·60 | 1·30 | ... | ... | 17·60 |
| 1877 | 0·60 | 0·60 | 1·10 | 0·70 | 1·60 | 3·30 | 0·40 | ... | 2·60 | 1·90 | 0·30 | 2·20 | 15·30 |
| 1878 | 0·60 | 0·60 | 0·20 | 1·40 | 0·80 | 1·70 | 5·20 | 9·30 | 0·70 | ... | ... | ... | 20·50 |
| 1879 | ... | 0·50 | 1·20 | ... | ... | 3·30 | 2·60 | 10·80 | 2·50 | ... | ... | 1·90 | 22·80 |
| 1880 | ... | 0·80 | ... | ... | ... | 1·50 | 7·00 | ... | 4·40 | ... | ... | 0·90 | 14·60 |
| 1881 | 0·10 | 0·30 | 2·50 | 0·70 | 0·30 | 3·10 | 10·70 | 5·70 | ... | ... | ... | ... | 23·40 |
| 1882 | 2·20 | 1·00 | ... | ... | 0·20 | 2·20 | 5·50 | 2·70 | 2·20 | ... | ... | ... | 16·00 |
| 1883 | 0·70 | ... | 0·40 | ... | 1·10 | 1·70 | 3·70 | 0·30 | 5·20 | 0·10 | 0·30 | ... | 13·50 |
| Mean | 0·66 | 0·61 | 0·63 | 0·29 | 0·66 | 2·78 | 5·81 | 4·56 | 2·93 | 0·47 | 0·03 | 0·37 | 19·80 |
| 1884 | ... | ... | 0·40 | ... | ... | 7·27 | 2·85 | 6·40 | 5·05 | ... | ... | ... | 21·97 |
| 1885 | 2·80 | ... | 0·10 | 0·30 | 2·20 | 5·30 | 6·70 | 20·70 | 1·30 | ... | ... | 5·10 | 44·50 |
| 1886 | 2·70 | ... | 0·90 | ... | 0·40 | 2·40 | 10·90 | 4·30 | 0·50 | 0·50 | ... | ... | 22·60 |
| Mean | 0·77 | 0·55 | 0·62 | 0·27 | 0·68 | 2·97 | 5·89 | 5·07 | 2·88 | 0·44 | 0·03 | 0·48 | 20·65 |

No. 45. DELHI.

Latitude N. 28° 40′. Longitude E. 77° 16′. Elevation 718 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | 0·11 | 0·19 | 7·10 | 7·26 | 0·22 | ... | ... | 0·13 | ? |
| 1845 | 0·14 | 2·13 | 0·93 | ... | 0·15 | 2·45 | 11·61 | 5·44 | 0·75 | ... | ... | 0·08 | 23·68 |
| 1846 | 0·01 | ... | 0·73 | ... | 0·31 | 12·88 | 3·10 | 1·55 | 2·25 | 0·09 | ... | ... | 20·92 |
| 1847 | 0·94 | 1·36 | 0·08 | ... | 0·03 | 7·26 | 9·37 | 6·36 | 2·70 | 0·09 | 0·43 | ... | 28·62 |
| 1848 | 0·10 | 0·08 | 0·21 | ... | 2·11 | 3·46 | 2·54 | 3·67 | 1·62 | 0·14 | ... | 0·38 | 14·31 |
| 1849 | 3·96 | ... | 0·06 | 0·12 | 0·10 | 3·14 | 5·60 | 6·39 | 5·41 | ... | 0·84 | 0·01 | 25·63 |
| 1850 | 2·05 | 0·69 | 0·03 | 0·68 | 0·08 | 0·96 | 5 42 | 5·01 | 2.88 | ... | 0·03 | 0·20 | 18·93 |
| 1851 | 2·55 | 0·29 | 1·30 | 0·94 | 0·06 | 0·38 | 11·47 | 7·68 | 0·11 | ... | ... | ... | 24·78 |
| 1852 | 0·45 | 0·34 | 4·32 | 0·40 | 0·71 | 2·27 | 5·67 | 11·42 | 1·50 | ... | 0·04 | 0·06 | 26·78 |
| 1853 | 1·01 | ... | 0·25 | 0·16 | 1·03 | 10·05 | 7·14 | 0·02 | 0·30 | 3·30 | ... | ... | 23·26 |
| 1854 | 0·05 | 1·01 | ... | 0·67 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1855 | 0·49 | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1856 | | | | | | | | | | | | | |
| 1857 | | | | | | Not on record. | | | | | | | |
| 1858 | | | | | | | | | | | | | |
| 1859 | ? | ? | ? | ? | 0·30 | 3·20 | 2·00 | 6·60 | 15·00 | ... | ... | 0·40 | ? |
| 1860 | 0·20 | 1·50 | ... | ... | 1·50 | 2·70 | 15·20 | 19·40 | 3·00 | ... | ... | ... | 43·50 |
| 1861 | 0·30 | ... | 0·90 | ? | 0·60 | 4·30 | 9·70 | 6·10 | 3·50 | ... | ... | 0·20 | 25·60 ? |
| 1862 | ... | ... | ... | ... | 0·80 | 3·00 | 24·40 | 9·80 | 10·30 | 2·10 | ... | ... | 50·40 |
| 1863 | 1·00 | ... | 1·80 | ... | 0·10 | 4·30 | 22·20 | 4·70 | 0·80 | 0·90 | 0·90 | 0·10 | 36·80 |
| 1864 | ... | 1·50 | ... | 2·50 | 1·00 | 0·30 | 9·70 | 2·80 | 9·90 | ... | ... | ... | 27·70 |
| 1865 | 0·30 | 1·20 | 0·70 | 0·50 | 1·10 | 0·80 | 3·60 | 15·00 | 6·00 | ... | ... | 0·50 | 29·70 |
| 1866 | 2·00 | ... | ... | 1·10 | ... | 2·50 | 8·20 | 18·10 | 3·50 | 0·40 | ... | ... | 35·80 |
| 1867 | ... | ... | 0·80 | 0·70 | 0·70 | 0·90 | 9·70 | 7·40 | 1·10 | ... | ... | 1·70 | 23·00 |
| 1868 | 1·50 | 1·30 | 0·50 | 0·90 | 0·10 | 2·30 | 1·10 | 0·30 | 0·10 | ... | ... | ... | 8·10 |
| 1869 | 0·60 | 0·20 | 3·20 | ... | ... | 0·90 | 6·50 | 2·20 | 8·20 | 1·70 | ... | ... | 23·50 |
| 1870 | ... | ... | 2·30 | 0·80 | ... | 6·20 | 2·80 | 11·50 | 0·50 | ... | ... | 0·10 | 24·20 |
| 1871 | 0·50 | 0·60 | ... | 0·40 | 3·70 | 5·10 | 9·60 | 8·90 | 1·70 | ... | ... | 1·70 | 32·20 |
| 1872 | 2·00 | 0·70 | 0·10 | 0·30 | 1·10 | ... | 11·30 | 10·60 | 6·10 | ... | ... | 0·50 | 32·70 |
| 1873 | 0·50 | ... | 0·20 | ... | 2·40 | 0·20 | 16·20 | 4·50 | 8·50 | 1·20 | ... | 0·50 | 34·20 |
| 1874 | 0·90 | ... | 1·00 | ... | 0·70 | 2·90 | 9·90 | 3·80 | 3·10 | ... | ... | ... | 22·30 |
| 1875 | 0·10 | 1·20 | ... | ... | 0·50 | 0·40 | 3·40 | 5·10 | 27·40 | 0·10 | ... | ... | 38·20 |
| 1876 | 0·03 | ... | 2·00 | 0·60 | 1·46 | 2·94 | 4·88 | 1·41 | 4·61 | 2·65 | ... | ... | 20·58 |
| 1877 | 2·06 | 1·76 | 0·41 | 0·60 | 0·43 | 3·79 | 1·06 | 0·20 | 0·17 | 5·34 | ... | 3·16 | 18·98 |
| 1878 | 0·88 | 0·92 | 0·20 | 1·10 | 0·78 | 0·55 | 9·30 | 15·15 | 0·26 | ... | ... | 0·04 | 29·18 |
| 1879 | ... | 0·21 | 1·03 | 0·05 | ... | 6·79 | 15·28 | 8·99 | 2·29 | 0·09 | ... | 1·22 | 35·95 |
| 1880 | 0·07 | 0·20 | ... | 0·04 | 0·25 | 1·30 | 12·67 | 2·95 | 7·84 | ... | 0·41 | 1·32 | 27·05 |
| 1881 | ... | 0·59 | 2·01 | 0·30 | 0·14 | 1·71 | 11·59 | 9·21 | 0·75 | ... | ... | ... | 26·30 |
| 1882 | 1·04 | 0·80 | ... | ... | 0·29 | 2·49 | 10·36 | 4·63 | 5·28 | ... | ... | ... | 24·89 |
| 1883 | 1·70 | ... | 1·79 | 0·15 | 0·68 | 3·53 | 2·57 | ... | 6·53 | ... | 0·09 | 0·01 | 17·05 |
| Mean | 0·81 | 0·55 | 0·79 | 0·39 | 0·67 | 3·03 | 8·64 | 6·69 | 4·40 | 0·52 | 0·08 | 0·35 | 26·2 |
| 1884 | ... | ... | 0·17 | ... | 0·13 | 6·09 | 4·26 | 9·62 | 16·46 | 0·03 | ... | 0·09 | 36·85 |
| 1885 | 6·82 | ... | 0·10 | 0·44 | 2·34 | 5·69 | 7·02 | 15·47 | 0·06 | ... | ... | 1·27 | 39·21 |
| 1886 | 1·23 | 0·12 | 0·28 | 0·01 | 0·54 | 10·42 | 9·65 | 4·75 | 1·24 | 1·28 | ... | 0·06 | 29·58 |
| Mean | 0·96 | 0·51 | 0·74 | 0·37 | 0·69 | 3·37 | 8·50 | 6·95 | 4·52 | 0·51 | 0·07 | 0·36 | 27·55 |

No. 46. GURGAON.

Latitude N. 28° 28′. Longitude E. 77° 4′. Elevation 700 feet.

Administration: PUNJAB. Rainfall Province No. II.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | ... | ... | 8·34 | 8·42 | ... | ... | ... | ... | ? |
| 1845 | ... | 0·70 | 0·60 | ... | 1·20 | 3·03 | 12·95 | 10·15 | 0·37 | ... | ... | 0·30 | 29·30 |
| 1846 | ... | ... | ... | ... | 0·50 | 12·80 | 5·35 | 1·53 | 2·35 | ... | ... | ... | 22·53 |
| 1847 | 0·70 | 0·11 | ... | ... | ... | 0·35 | 6·20 | 6·14 | 5·61 | ... | 0·20 | ... | 19·31 |
| 1848 | 0·15 | ... | 0·14 | ... | 1·32 | 1·44 | 3·19 | 10·07 | 1·86 | ... | ... | 0·30 | 18·47 |
| 1849 | 2·56 | ... | ... | ... | ... | 4·38 | 2·60 | 15·51 | 7·15 | ... | 0·47 | 0·01 | 32·68 |
| 1850 | 2·53 | 0·11 | ... | 0·91 | 0·03 | 2·26 | 8·43 | 4·00 | 3·62 | ... | ... | 0·03 | 21·92 |
| 1851 | 1·93 | ... | 0·46 | 0·33 | ... | 0·81 | 14·11 | 4·81 | 0·63 | ... | ... | ... | 23·08 |
| 1852 | 0·20 | 0·20 | 1·70 | 0·50 | 1·22 | 1·47 | 6·02 | 10·27 | 0·97 | ... | ... | 0·07 | 22·62 |
| 1853 | 4·05 | ... | 0·05 | ... | 1·77 | 2·67 | 6·24 | ... | 0·86 | 2·93 | ... | ... | 18·57 |
| 1854 | 0·10 | 0·20 | ... | ... | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1855 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | ? | ? | ? | ? | 1·60 | 5·40 | 9·50 | 5·90 | 9·70 | ... | ... | 0·30 | ? |
| 1862 | 0·10 | 0·30 | 1·50 | ... | ... | 2·60 | 22·50 | 11·20 | 12·20 | 1·50 | ... | ... | 51·90 |
| 1863 | 1·40 | ... | 1·80 | 0·30 | ... | 4·40 | 24·20 | 4·20 | 3·10 | 0·20 | ... | ... | 39·60 |
| 1864 | ... | 0·90 | ... | 0·90 | 2·70 | ... | 4·80 | 4·70 | 7·00 | ... | ... | ... | 21·00 |
| 1865 | 0·30 | 0·80 | 0·70 | ... | 1·90 | 0·30 | 1·60 | 15·20 | 6·10 | ... | ... | 0·30 | 27·20 |
| 1866 | 3·40 | ... | ... | ... | ... | 1·20 | 13·10 | 16·70 | 1·60 | ... | ... | ... | 36·00 |
| 1867 | 0·10 | ... | 0·30 | 0·30 | 1·90 | 0·30 | 4·60 | 15·10 | 0·50 | ... | ... | 0·40 | 23·50 |
| 1868 | 1·60 | 1·10 | 0·10 | 0·30 | ... | 1·10 | 6·10 | ... | 1·30 | ... | ... | ... | 11·60 |
| 1869 | 0·80 | 0·40 | 1·20 | ... | ... | ... | 7·00 | 1·70 | 11·90 | 0·40 | ... | 0·10 | 23·50 |
| 1870 | ... | ... | 2·10 | 0·70 | 0·10 | 3·50 | 6·60 | 2·30 | 1·60 | ... | ... | 0·10 | 17·00 |
| 1871 | 0·40 | 0·40 | ... | 0·20 | 2·10 | 2·90 | 8·90 | 4·40 | 6·30 | ... | ... | 1·30 | 26·90 |
| 1872 | 1·50 | 0·10 | 0·10 | ... | 0·80 | 5·60 | 8·70 | 10·00 | 2·50 | ... | ... | 0·90 | 30·20 |
| 1873 | 0·40 | ... | 1·00 | ... | 2·10 | 1·10 | 24·90 | 4·60 | 9·30 | 3·50 | ... | 0·20 | 47·10 |
| 1874 | 0·30 | ... | 0·10 | ... | 0·90 | 8·70 | 15·20 | 2·70 | 3·70 | ... | ... | ... | 31·60 |
| 1875 | ... | 1·10 | ... | ... | 1·90 | ... | 8·70 | 5·20 | 28·20 | 0·40 | ... | ... | 45·50 |
| 1876 | ... | 0·20 | 2·40 | 0·20 | 0·60 | 1·70 | 13·50 | 2·20 | 6·60 | 3·40 | ... | ... | 30·80 |
| 1877 | 1·80 | 1·50 | 0·70 | 0·90 | 0·90 | 4·80 | 1·40 | 0·10 | 1·80 | 2·40 | ... | 3·50 | 19·80 |
| 1878 | 0·90 | 1·50 | ... | ... | 0·40 | 0·90 | 8·50 | 15·00 | 0·90 | ... | ... | ... | 28·10 |
| 1879 | ... | 0·20 | 0·50 | ... | ... | 1·30 | 6·20 | 8·50 | 2·90 | 0·50 | ... | 1·35 | 21·45 |
| 1880 | 0·20 | ... | ... | ... | ... | 1·35 | 5·35 | 3·55 | 3·65 | ... | 0·20 | 0·85 | 15·15 |
| 1881 | ... | 0·50 | 1·60 | 0·10 | 0·40 | 1·30 | 8·30 | 9·51 | ... | ... | ... | ... | 21·71 |
| 1882 | 0·30 | 0·10 | ... | ... | 0·03 | 1·05 | 7·33 | 1·85 | 3·22 | ... | ... | ... | 13·88 |
| 1883 | 0·80 | ... | 1·20 | ... | 0·37 | 3·13 | 6·10 | ... | 7·20 | ... | ... | ... | 18·80 |
| Mean | 0·83 | 0·33 | 0·57 | 0·18 | 0·75 | 2·48 | 8·99 | 6·53 | 4·69 | 0·46 | 0·03 | 0·30 | 26·14 |
| 1884 | ... | ... | ... | ... | 0·50 | 5·35 | 6·30 | 4·91 | 10·25 | 0·08 | ... | ... | 27·39 |
| 1885 | 3·90 | ... | ... | ... | 0·40 | 6·40 | 5·90 | 23·80 | 0·80 | ... | ... | 0·80 | 42·00 |
| 1886 | 0·70 | 0·10 | 0·50 | ... | 0·50 | 9·80 | 10·80 | 1·10 | 0·60 | 0·70 | ... | ... | 24·80 |
| Mean | 0·89 | 0·30 | 0·54 | 0·16 | 0·73 | 2·87 | 8·88 | 6·81 | 4·62 | 0·44 | 0·02 | 0·30 | 26·56 |

No. 47. CHAKRATA.

Latitude N. 30° 40′. Longitude E. 77° 55′. Elevation 7,050 feet.

Administration: N.-W. PROVINCES. Rainfall Province No. I.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1869 | ... | ... | 11·02 | 0·60 | 0·05 | 3·72 | 8·85 | 4·07 | 10·30 | 0·77 | ... | 1·95 | 42·23 |
| 1870 | 0·40 | 1·19 | 6·27 | 2·67 | 0·20 | 10·75 | 16·30 | 11·77 | 6·24 | 0·72 | ... | ... | 56·51 |
| 1871 | ... | ... | ... | 0·89 | 5·46 | 15·04 | 25·20 | 19·24 | 4·02 | ... | ... | 1·21 | 72·56 |
| 1872 | 0·90 | 1·46 | 2·03 | 1·18 | 2·52 | 3·03 | 17·75 | 13·50 | 3·95 | ... | ... | 0·46 | 47·08 |
| 1873 | ... | 0·00 | 2·57 | 0·49 | 3·39 | 1·29 | 13·62 | 10·31 | 4·00 | 0·57 | 0·25 | 1·37 | 45·06 |
| 1874 | 1·22 | 0·69 | 3·20 | 0·46 | 1·55 | 14·24 | 23·71 | 17·08 | 7·54 | ... | ... | ... | 69·78 |
| 1875 | 0·68 | 0·37 | 0·44 | 0·44 | 3·83 | 11·02 | 14·03 | 27·88 | 10·63 | 1·02 | ... | 0·32 | 78·46 |
| 1876 | 2·78 | 1·30 | 3·47 | 2·61 | 2·03 | 1·04 | 20·00 | 20·04 | 5·03 | 2·46 | ... | ... | 63·42 |
| 1877 | 4·76 | 0·40 | 4·50 | 3·08 | 5·08 | 5·07 | 12·30 | 3·70 | 2·17 | 1·05 | 1·20 | 6·57 | 57·83 |
| 1878 | 2·79 | 3·02 | 0·66 | 6·05 | 8·86 | 0·66 | 20·27 | 18·18 | 3·81 | 0·08 | ... | 0·10 | 65·98 |
| 1879 | 0·30 | 1·56 | 5·05 | 0·70 | 0·22 | 12·37 | 15·01 | 27·02 | 6·41 | 0·75 | ... | 0·81 | 72·36 |
| 1880 | 3·05 | 8·04 | ... | 1·03 | 3·42 | 12·04 | 23·83 | 6·87 | 9·81 | ... | 1·80 | 2·14 | 72·98 |
| 1881 | 1·20 | 2·38 | 5·36 | 2·11 | 1·40 | 5·27 | 17·18 | 15·12 | 2·32 | 0·04 | 0·02 | ... | 52·40 |
| 1882 | 4·21 | 5·05 | 0·71 | 1·05 | 1·20 | 5·02 | 17·43 | 15·40 | 0·80 | 0·44 | 0·10 | ... | 53·51 |
| 1883 | 5·01 | 0·44 | 2·07 | 0·91 | 3·04 | 8·87 | 15·83 | 14·30 | 5·43 | 0·00 | 0·81 | 0·23 | 58·26 |
| Mean | **1·86** | **2·65** | **3·27** | **1·81** | **2·92** | **7·70** | **17·58** | **15·41** | **5·58** | **0·53** | **0·23** | **1·01** | **60·60** |
| 1884 | 0·00 | 2·18 | 1·80 | 0·10 | 1·38 | 5·50 | 11·75 | 10·14 | 8·47 | 4·30 | ... | 0·02 | 54·85 |
| 1885 | 8·01 | 4·10 | 0·74 | 2·56 | 4·45 | 11·20 | 18·85 | 20·40 | 6·85 | 0·64 | ... | 2·20 | 80·72 |
| 1886 | 5·06 | 2·12 | 5·23 | 0·27 | 3·35 | 2·45 | 15·89 | 12·00 | 1·73 | 0·48 | 0·06 | 1·47 | 50·80 |
| Mean | **2·32** | **2·68** | **3·16** | **1·68** | **2·94** | **7·48** | **17·24** | **15·74** | **5·60** | **0·74** | **0·24** | **1·05** | **60·87** |

No. 48. MUSSOOREE.

Latitude N. 30° 28′ Longitude E. 78° 7′. Elevation 6,881 feet.

Administration: N.-W. PROVINCES. Rainfall Province No. I.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1852 | ? | ? | ? | 3·10 | 5·20 | 21·40 | 32·40 | 37·50 | 0·20 | ... | ? | ? | ? |
| 1853 | ? | ? | ? | ? | 1·90 | 13·80 | 45·00 | 11·00 | 3·50 | 5·70 | ? | ? | ? |
| 1854 | 2·00 | 6·20 | 1·40 | 0·30 | 1·70 | 13·10 | 21·80 | 40·00 | 14·50 | 0·60 | ... | 2·90 | 114·10 |
| 1855 | 2·40 | ? | ? | 3·36 | ... | 7·20 | 44·00 | 22·10 | 12·40 | 0·20 | ? | ? | ? |
| 1856 | 1·90 | 0·20 | 0·80 | 0·00 | 3·20 | 15·60 | 33·00 | 34·60 | 6·90 | ... | ? | ? | ? |
| 1857 | ? | ? | ? | 1·70 | 2·40 | 10·90 | 30·90 | 25·60 | 8·50 | 1·00 | 0·60 | ... | ? |
| 1858 | 2·10 | 2·60 | 0·20 | ... | 1·10 | 5·10 | 23·10 | 32·50 | 21·80 | 0·20 | ... | 1·80 | 90·50 |
| 1859 | 2·00 | 6·70 | 3·70 | 4·50 | 3·20 | 17·30 | 10·40 | 33·30 | 8·10 | ... | ... | 2·30 | 98·10 |
| 1860 | ? | ? | ? | ? | 1·70 | 4·30 | 24·70 | 31·90 | 3·10 | 0·10 | ? | ? | ? |
| 1861 | ? | ? | ? | ? | ? | 5·40 | 57·00 | 39·10 | 3·10 | ? | ? | ? | ? |

MUSSOOREE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | P | P | P | P | P | 10·90 | 13·90 | 36·10 | 7·00 | 6·50 | ... | P | P |
| 1863 | P | P | P | 3·40 | 3·30 | P | P | P | P | P | P | P | P |
| 1864 | P | P | P | P | 2·30 | 0·50 | 42·30 | 32·20 | 8·60 | P | P | P | P |
| 1865 | P | P | P | P | P | 2·30 | 2·60 | 56·60 | 10·30 | P | P | P | P |
| 1866 | P | P | P | P | P | 7·60 | 47·20 | 34·00 | 2·90 | P | P | P | P |
| 1867 | P | P | P | P | P | 7·20 | 29·00 | 37·40 | 8·40 | 0·80 | P | P | P |
| 1868 | P | P | P | P | P | 12·00 | 23·70 | 22·00 | 2·10 | 0·20 | ... | 0·30 | P |
| 1869 | 2·80 | 0·70 | 9·20 | ... | ... | 3·30 | 17·40 | 15·40 | 17·70 | 1·50 | ... | 0·70 | 68·70 |
| 1870 | 0·10 | 1·80 | 4·50 | 2·80 | ... | 15·30 | 29·20 | 19·40 | 11·40 | 0·90 | ... | 0·20 | 85·60 |
| 1871 | 0·60 | 5·30 | 0·10 | 0·80 | 6·00 | 18·50 | 32·70 | 21·80 | 8·40 | ... | ... | 0·70 | 94·90 |
| 1872 | 4·80 | 3·50 | 1·90 | 3·20 | 2·50 | 10·20 | 28·50 | 31·30 | 13·30 | ... | ... | 0·50 | 99·70 |
| 1873 | 2·40 | 0·30 | 2·00 | 0·20 | 3·40 | 0·70 | 32·50 | 26·30 | 15·00 | ... | ... | 1·60 | 84·40 |
| 1874 | 1·70 | 3·90 | 12·70 | ... | 0·30 | 19·40 | 32·70 | 35·50 | 9·40 | ... | ... | ... | 115·60 |
| 1875 | 1·80 | 7·70 | 0·30 | ... | 6·90 | 4·00 | 25·60 | 29·70 | 18·60 | 1·20 | ... | ... | 95·80 |
| 1876 | 1·30 | 0·50 | 2·80 | 2·90 | 2·30 | 1·80 | 38·50 | 30·80 | 12·70 | 2·80 | ... | ... | 96·40 |
| 1877 | 3·40 | 2·50 | 3·90 | 4·50 | 5·10 | 6·80 | 11·20 | 8·40 | 2·70 | 2·10 | 1·00 | 5·60 | 57·20 |
| 1878 | 2·30 | 4·80 | 1·00 | 5·60 | 7·60 | 1·50 | 35·80 | 44·80 | 6·70 | 0·20 | ... | 0·10 | 110·40 |
| 1879 | 0·30 | 2·50 | 3·20 | 0·50 | 0·10 | 13·90 | 20·80 | 44·80 | 13·90 | 1·10 | ... | 1·00 | 102·10 |
| 1880 | 1·50 | 3·50 | ... | 0·70 | 2·10 | 18·30 | 34·40 | 7·90 | 14·50 | ... | 1·30 | 3·10 | 87·30 |
| 1881 | 1·10 | 1·40 | 4·90 | 1·10 | 1·50 | 5·50 | 43·00 | 32·50 | 21·90 | ... | ... | ... | 112·90 |
| 1882 | 4·50 | 3·70 | 1·10 | 1·70 | 1·30 | 12·90 | 44·10 | 21·70 | 2·50 | 0·80 | ... | ... | 94·30 |
| 1883 | 2·24 | 0·64 | 2·40 | 0·88 | 1·40 | 8·87 | 26·90 | 14·52 | 11·70 | ... | 3·20 | 0·30 | 73·05 |
| Mean | **2·09** | **3·08** | **2·95** | **1·82** | **2·56** | **9·82** | **30·35** | **29·71** | **10·03** | **0·96** | **0·29** | **1·06** | **94·72** |
| 1884 | ... | 1·52 | 1·82 | 0·15 | 2·15 | 7·84 | 28·55 | 28·48 | 14·85 | 1·86 | ... | ... | 87·22 |
| 1885 | 6·74 | 2·28 | 1·19 | 1·38 | 5·72 | 10·39 | 21·18 | 39·28 | 8·30 | ... | ... | 2·28 | 98·74 |
| 1886 | 4·51 | 0·63 | 4·87 | 0·50 | 6·04 | 4·11 | 37·03 | 37·14 | 3·50 | 2·38 | ... | 1·75 | 102·46 |
| Mean | **2·31** | **2·86** | **2·91** | **1·69** | **2·77** | **9·62** | **30·23** | **30·17** | **9·93** | **1·00** | **0·25** | **1·09** | **94·83** |

No. 49. DEHRA DUN.

Latitude N. 30° 20′. Longitude E. 78° 8′. Elevation 2,232 feet.

Administration: N.-W. Provinces. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | P | P | P | P | 2·05 | 5·70 | 17·95 | 24·70 | 0·30 | ... | ... | ... | P |
| 1845 | 0·05 | 4·40 | 1·50 | 0·10 | 1·30 | 10·46 | 22·75 | 19·60 | 5·02 | ... | ... | 1·80 | 66·98 |
| 1846 | 0·46 | ... | 0·05 | ... | 0·05 | 8·60 | 32·72 | 23·09 | 17·34 | 0·47 | ... | ... | 82·78 |
| 1847 | 5·04 | 2·19 | ... | ... | ... | 0·53 | 22·43 | 17·45 | 5·92 | 1·30 | ... | ... | 54·86 |
| 1848 | ... | 0·86 | ... | 1·23 | 1·46 | 4·86 | 11·97 | 11·15 | 2·38 | 0·60 | ... | 0·60 | 35·11 |
| 1849 | 1·42 | 0·36 | ... | ... | ... | 8·81 | 4·51 | 19·83 | 33·90 | ... | 0·62 | ... | 69·45 |
| 1850 | 2·14 | 2·69 | 0·11 | 0·74 | ... | 4·94 | 3·67 | 26·49 | 5·78 | 0·43 | 0·30 | 1·57 | 48·86 |
| 1851 | 6·94 | 5·49 | 1·20 | 0·41 | ... | 3·68 | 18·37 | 22·49 | 5·71 | 0·13 | 0·53 | ... | 64·95 |
| 1852 | 0·03 | 0·17 | 0·69 | 0·10 | 2·01 | 15·03 | 27·06 | 25·09 | 4·03 | ... | 0·05 | ... | 74·26 |
| 1853 | 11·06 | 1·07 | 0·04 | 2·05 | 0·09 | 17·04 | 58·07 | 15·05 | 5·02 | 3·07 | ... | ... | 112.56 |

DEHRA DUN—*continued.*

| Year. | Rainfall or Inches. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1854 | 0·24 | 0·44 | ... | ... | ... | 17·90 | 13·70 | 55·10 | 6·40 | 1·20 | ... | 0·90 | 95·88 |
| 1855 | 1·20 | ... | 4·00 | 1·60 | ... | 6·20 | 35·10 | 12·90 | 8·80 | ... | P | P | P |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | P | P | P | P | P | 3·50 | 22·10 | 10·80 | 3·90 | 0·10 | ... | ... | P |
| 1861 | 0·60 | ... | 1·30 | 0·10 | 4·90 | 10·30 | 33·20 | 40·90 | 7·00 | ... | ... | 0·60 | 98·90 |
| 1862 | 1·40 | ... | 1·30 | 0·60 | 1·00 | 8·30 | 27·50 | 35·30 | 15·30 | 4·10 | ... | ... | 94·80 |
| 1863 | 2·70 | ... | ... | 0·50 | 0·40 | 16·50 | 29·90 | 28·30 | 2·30 | ... | ... | 2·80 | 83·40 |
| 1864 | 1·40 | 2·20 | 1·20 | 0·60 | 1·90 | 0·10 | 24·20 | 21·10 | 4·00 | 0·50 | 0·10 | ... | 57·90 |
| 1865 | 1·70 | 6·00 | 4·10 | 0·90 | 6·20 | 1·30 | 13·60 | 29·50 | 9·80 | ... | ... | ... | 73·10 |
| 1866 | 2·30 | 3·50 | ... | 2·20 | ... | 7·90 | 33·10 | 22 10 | 4·60 | 0·30 | ... | ... | 76·00 |
| 1867 | 1·30 | 1·60 | 1·40 | 0·50 | 2·10 | 7·60 | 25·80 | 20·30 | 6·70 | 0·20 | ... | 0·20 | 67·70 |
| 1868 | 1·90 | 7·20 | 1·60 | 0·60 | 0·70 | 8·00 | 16·90 | 13·50 | 2·50 | 0·10 | ... | 0·10 | 53·10 |
| 1869 | 1·90 | 0·10 | 7·10 | ... | ... | 5·20 | 20·50 | 19·40 | 22·80 | 2·60 | ... | 0·80 | 80·40 |
| 1870 | 0·10 | 1·30 | 3·90 | 2·30 | 0·30 | 6·90 | 29·20 | 28·50 | 11·50 | 1·10 | ... | ... | 85·10 |
| 1871 | ... | 1·90 | ... | 0·20 | 2·80 | 23·50 | 32·40 | 35·60 | 8·40 | ... | ... | 1·30 | 106·10 |
| 1872 | 7·00 | 2·00 | 0·50 | 0·80 | 1·20 | 11·70 | 22·00 | 20·50 | 14·70 | ... | 0·30 | 0·30 | 81·00 |
| 1873 | 1·20 | 0·60 | 1·20 | ... | 1·10 | 0·70 | 28·00 | 18·50 | 10·00 | ... | ... | 0·50 | 61·80 |
| 1874 | 3·90 | 1·50 | 3·40 | ... | 0·90 | 20·30 | 36·20 | 23·70 | 8·50 | ... | ... | ... | 98·40 |
| 1875 | 0·40 | 6·40 | ... | ... | 4·20 | 10·00 | 23·70 | 21·90 | 11·40 | 0·20 | ... | ... | 78·20 |
| 1876 | ... | ... | 1·50 | 1·40 | 0·70 | 1·80 | 33·30 | 22·80 | 13·10 | 5·10 | ... | ... | 79·70 |
| 1877 | 3·00 | 3·90 | 2·00 | 1·90 | 2·10 | 5·40 | 5·30 | 6·60 | 1·20 | 2·00 | 0·30 | 3·30 | 37·00 |
| 1878 | 2·50 | 1·60 | 1·05 | 3·50 | 4·87 | 0·50 | 25·00 | 31·70 | 13·70 | 0·20 | ... | 0·20 | 84·82 |
| 1879 | 0·10 | 1·48 | 2·47 | 0·25 | ... | 13·39 | 36·29 | 35·06 | 18·52 | 0·52 | ... | 0·66 | 108·74 |
| 1880 | 1·68 | 3·90 | ... | 0·31 | 2·47 | 9·12 | 33·39 | 17·00 | 13·45 | ... | 1·47 | 1·63 | 84·42 |
| 1881 | 0·26 | 0·65 | 2·83 | 0·45 | 2·13 | 10·09 | 29·11 | 30·35 | 18·62 | 0·97 | ... | ... | 95·46 |
| 1882 | 3·19 | 2·14 | 0·44 | 0·90 | 2·67 | 8·10 | 31·15 | 17·22 | 0·53 | 0·39 | 0·22 | ... | 66·85 |
| 1883 | 6·00 | ... | 1·66 | 0·34 | 1·26 | 13·96 | 17·23 | 14·27 | 6·00 | ... | 1·54 | 0·09 | 62·92 |
| Mean | 2·15 | 1·93 | 1·37 | 0·72 | 1·45 | 8·55 | 24·93 | 23·27 | 9·18 | 0·71 | 0·15 | 0·50 | 74·91 |
| 1884 | ... | 0·53 | 0·64 | ... | 0·21 | 5·29 | 24·63 | 36·00 | 15·92 | 2·45 | 0·05 | ... | 85·72 |
| 1885 | 4·69 | 1·82 | 0·21 | 0·74 | 4·77 | 14·16 | 18·25 | 64·48 | 7·03 | ... | ... | 3·78 | 119·93 |
| 1886 | 3·30 | 1·70 | 2·79 | 0·03 | 3·58 | 7·74 | 35·51 | 28·32 | 8·06 | 3·77 | 0·03 | 0·99 | 95·82 |
| Mean | 2·19 | 1·88 | 1·36 | 0·68 | 1·56 | 8·59 | 25·02 | 24·79 | 9·26 | 0·82 | 0·14 | 0·58 | 76·27 |

No. 50. SRINAGAR.

Latitude N 30° 13′. Longitude E. 78° 48′. Elevation 1,743 feet.

Administration : N.-W. Provinces. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1864 | 1·30 | 2·40 | 0·60 | 0·30 | 3·60 | 1·50 | 4·40 | 5·10 | 4·10 | 0·20 | ... | ... | 23·20 |
| 1865 | 1·70 | 5·40 | 5·40 | 0·50 | 3·80 | 1·40 | 5·00 | 10·70 | 3·90 | ... | 0·20 | 4·40 | 42·40 |
| 1866 | 4·30 | 2·80 | ... | 2·00 | ... | 4·10 | 12·90 | 12·80 | 0·20 | 0·10 | ... | ... | 39·20 |
| 1867 | 0·40 | 3·00 | 0·70 | 1·10 | 1·70 | 8·50 | 8·70 | 11·70 | 2·00 | 0·70 | ... | 0·20 | 38 70 |

SRINAGAR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | 3·90 | 7·90 | 3·60 | 2·00 | 1·90 | 7·10 | 9·60 | 6·30 | 1·50 | ... | ... | 0·50 | 44·30 |
| 1869 | 1·60 | 1·00 | 7 60 | 0·70 | 0·40 | 1·80 | 8·60 | 3·20 | 3·80 | 4·80 | ... | 0·70 | 34·20 |
| 1870 | 0·30 | 1·40 | 4·80 | 1·50 | 0·60 | 4·90 | 7·90 | 9·60 | 2·40 | 0·10 | ... | ... | 33·50 |
| 1871 | ... | 5·00 | ... | 1·80 | 6·00 | 9·10 | 11·60 | 4·40 | 1·10 | ... | ... | 0·40 | 39·40 |
| 1872 | 7·40 | 3·40 | 1·70 | 0·90 | 1·40 | 4·40 | 7·60 | 5·40 | 1·60 | ... | 0·20 | ... | 34·00 |
| 1873 | 1·30 | 0·40 | 2·80 | 0·30 | 3·00 | 1·30 | 10·40 | 4·70 | 5·70 | 0·20 | ... | 1·60 | 31·70 |
| 1874 | 3·50 | 3·40 | 3·60 | 0·30 | ... | 8·00 | 10·70 | 10·70 | 5·30 | ... | ... | ... | 45·50 |
| 1875 | 0·40 | 6·40 | ... | 0·10 | 3·50 | 3·00 | 8·90 | 7·50 | 5·40 | 1·00 | ... | ... | 36·20 |
| 1876 | 0·70 | 0·80 | 1·50 | 1·60 | 1·50 | 0·70 | 7·40 | 5·00 | 3·40 | 1·70 | ... | ... | 24·30 |
| 1877 | 3·70 | 2·90 | 4·30 | 0·80 | 2·50 | 4·60 | 4·30 | 3·20 | 0·40 | 0·90 | ... | 3·30 | 30·90 |
| 1878 | 3·90 | 2·10 | 0·70 | 3·10 | 2·10 | 0·70 | 11·60 | 10·00 | 0·30 | 0·10 | ... | 0·20 | 24·80 |
| 1879 | 0·18 | 2·80 | 3·02 | ... | 0·20 | 6·80 | 11·50 | 18·50 | 2·20 | ... | ... | 0·30 | 45·50 |
| 1880 | 2·80 | 7·40 | 0·20 | 0·80 | 6·00 | 6·10 | 8·30 | 2·00 | 12·20 | ... | 1·50 | 2·50 | 49·80 |
| 1881 | ... | 1·60 | 3·20 | 1·00 | 1·90 | 5·50 | 6·50 | 14·30 | 2·30 | ... | ... | ... | 36·30 |
| 1882 | 2·00 | 3·00 | 0·20 | 1·30 | 2·40 | 6·70 | 11·50 | 8·30 | 0·60 | ... | 0·30 | ... | 36·30 |
| 1883 | 4·40 | ... | 2·90 | 0·30 | 1·90 | 1·70 | 6·40 | 6·40 | 2·80 | ... | 2·20 | 0·10 | 29·10 |
| Mean | **2·19** | **3·16** | **2·34** | **1·02** | **2·22** | **4·40** | **8·68** | **7·99** | **3·06** | **0·49** | **0·22** | **0·71** | **36·48** |
| 1884 | ... | 0·60 | 1·40 | ... | 0·90 | 6·90 | 5·20 | 16·10 | 8·60 | 0·80 | ... | 0·20 | 40·70 |
| 1885 | 6·30 | 1·00 | ... | ... | 3·50 | 7·80 | 9·80 | 13·20 | 1·70 | ... | ... | 2·40 | 45·70 |
| 1886 | 3·00 | 3·20 | 4·40 | 0·10 | 4·30 | 2·80 | 9·40 | 9·60 | 3·60 | 1·00 | ... | 0·43 | 42·13 |
| Mean | **2·31** | **2·95** | **2·29** | **0·89** | **2·31** | **4·58** | **8·60** | **8·64** | **3·28** | **0·50** | **0·19** | **0·75** | **37·29** |

No. 51. PAURI.

Latitude N. 30° 8′. Longitude E. 78° 55′. Elevation 5,230 feet.

Administration: N.-W. Provinces. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | 1·25 | 7·32 | 13·56 | 20·12 | 1·85 | ... | 0·02 | 0·83 | ? |
| 1845 | 0·85 | 3·46 | 3·42 | 1·78 | 1·88 | 7·33 | 11·96 | 14·49 | 6·57 | ... | ... | 1·64 | 53·38 |
| 1846 | 0·61 | 1·79 | 2·46 | 0·16 | 4·85 | 9·80 | 19·83 | 11·54 | 15·22 | 9·10 | ... | 1·00 | 67·36 |
| 1847 | 5·09 | 2·13 | 1·52 | 0·60 | 1·90 | 5·67 | 14·93 | 12·36 | 6·32 | 1·80 | 1·42 | 0·02 | 53·76 |
| 1848 | 0·97 | 3·00 | 0·78 | 0·17 | 2·67 | 3·94 | 8·98 | 13·92 | 1·30 | 0·22 | ... | 0·85 | 36·80 |
| 1849 | 3·05 | 1·00 | 0·37 | 0·44 | 0·75 | 7·75 | 5·62 | 10·79 | 8·35 | ... | 0·60 | 0·01 | 38·73 |
| 1850 | 3·48 | 2·55 | 1·02 | 2·71 | 1·18 | 2·09 | 11·27 | 19·61 | 7·05 | 0·25 | 0·63 | 2·30 | 54·14 |
| 1851 | 8·80 | 6·90 | 0·85 | 1·35 | 0·10 | 3·03 | 16·05 | 6·71 | 1·37 | 0·30 | 0·67 | ... | 46·13 |
| 1852 | 1·43 | 2·18 | 6·44 | 2·14 | 3·10 | 8·05 | 16·08 | 10·33 | 3·80 | ... | 0·09 | 0·20 | 53·84 |
| 1853 | 3·60 | 1·35 | 1·30 | 2·75 | 1·16 | 8·73 | 19·60 | 8·80 | 4·40 | 2·78 | 0·45 | ... | 51·92 |
| 1854 | 2·70 | 4·60 | 0·55 | 0·10 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1855 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 2·80 | 15·60 | 12·60 | 1·80 | 0·70 | ... | ... | ? |
| 1861 | 3·00 | ... | 1·30 | 0·90 | 5·10 | 5·90 | 15·10 | 21·00 | 2·70 | ... | ... | 0·90 | 55·90 |

PAURI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | 2·30 | ... | 2·00 | 0·90 | 2·20 | 7·40 | 12·70 | 14·80 | 5·40 | 1·30 | ... | 0·10 | 49·10 |
| 1863 | 3·40 | 0·50 | ... | 1·90 | 1·00 | 8·00 | 20·70 | 7·10 | 1·10 | 0·60 | 1·90 | 1·20 | 48·30 |
| 1864 | 1·20 | 2·60 | 1·80 | 1·10 | 4·30 | 0·40 | 7·00 | 12·20 | 7·50 | 0·40 | ... | ... | 38·50 |
| 1865 | 2·70 | 4·50 | 6·70 | 0·80 | 6·20 | 2·30 | 4·50 | 0·80 | 7·10 | ... | ... | 4·90 | 40·50 |
| 1866 | 5·70 | 2·40 | ... | 2·10 | ... | 4·50 | 23·00 | 17·80 | 1·80 | ... | ... | ... | 57·80 |
| 1867 | 0·90 | 2·70 | 1·10 | 1·20 | 2·80 | 10·50 | 13·30 | 18·70 | 3·80 | ... | ... | 0·20 | 55·20 |
| 1868 | 4·00 | 7·70 | 3·00 | 1·90 | 1·70 | 5·00 | 9·00 | 6·80 | 0·30 | ... | ... | ... | 40·60 |
| 1869 | 1·90 | 1·50 | 8·20 | 0·30 | ... | 1·00 | 10·10 | 8·10 | 6·80 | 5·50 | ... | ... | 43·40 |
| 1870 | 0·20 | 1·80 | 5·40 | 2·00 | 0·50 | 4·30 | 15·50 | 13·60 | 3·40 | ... | ... | ... | 47·30 |
| 1871 | ... | 4·50 | ... | 1·50 | 8·20 | 12·80 | 18·70 | 10·90 | 2·00 | ... | ... | 0·80 | 59·40 |
| 1872 | 7·10 | 3·90 | 2·80 | 1·40 | 2·30 | 5·00 | 17·90 | 14·40 | 8·10 | ... | ... | ... | 63·80 |
| 1873 | 0·70 | 0·60 | 2·70 | ... | 6·10 | 1·50 | 12·20 | 3·00 | 12·50 | ... | ... | 0·70 | 40·60 |
| 1874 | 0·90 | 5·40 | 2·20 | 0·20 | ... | 8·20 | 14·90 | 17·00 | 6·70 | ... | ... | ... | 56·10 |
| 1875 | 0·50 | 3·50 | 0·30 | ... | 5·20 | 4·10 | 13·50 | 12·30 | 10·10 | 1·20 | ... | ... | 50·70 |
| 1876 | 1·40 | 0·80 | 1·00 | 1·40 | 1·80 | 0·80 | 11·30 | 10·20 | 6·10 | 2·80 | ... | ... | 38·70 |
| 1877 | 4·30 | 4·20 | 7·10 | 3·20 | 7·00 | 0·70 | 5·10 | 4·00 | 0·70 | 0·40 | 0·10 | 5·50 | 48·90 |
| 1878 | 4·90 | 4·30 | 1·30 | 2·90 | 3·30 | 1·10 | 10·60 | 12·40 | 1·80 | 0·20 | ... | 0·10 | 48·30 |
| 1879 | 0·30 | 3·30 | 2·80 | 0·30 | 0·30 | 0·00 | 16·20 | 23·80 | 4·50 | 0·80 | ... | 0·20 | 59·10 |
| 1880 | 2·30 | 5·80 | ... | 1·30 | 2·10 | 3·70 | 11·90 | 5·10 | 13·20 | ... | 2·00 | 1·50 | 48·90 |
| 1881 | 0·50 | 1·90 | 4·20 | 1·70 | 2·70 | 3·00 | 12·50 | 15·30 | 4·20 | 0·10 | ... | ... | 46·70 |
| 1882 | 2·20 | 3·30 | 0·20 | 2·20 | 3·40 | 8·50 | 22·80 | 12·10 | 0·50 | ... | 0·70 | ... | 55·90 |
| 1883 | 3·60 | ... | 3·46 | 0·35 | 3·20 | 3·34 | 9·44 | 7·15 | 2·12 | ... | 1·48 | 0·12 | 34·32 |
| Mean | **2·56** | **2·87** | **2·35** | **1·30** | **2·69** | **5·40** | **13·75** | **12·35** | **4·93** | **0·57** | **0·30** | **0·68** | **49·75** |
| 1884 | ... | 0·87 | 1·32 | 0·16 | 0·88 | 5·10 | 13·24 | 22·75 | 9·03 | 3·44 | ... | 0·17 | 56·06 |
| 1885 | 6·34 | 0·74 | 0·69 | 0·87 | 2·23 | 7·37 | 12·02 | 16·04 | 1·07 | ... | ... | 2·77 | 51·04 |
| 1886 | 2·37 | 1·65 | 4·86 | 0·15 | 3·28 | 0·63 | 13·36 | 10·30 | 1·26 | 0·67 | ... | 0·25 | 44·80 |
| Mean | **2·59** | **2·72** | **2·34** | **1·22** | **2·65** | **5·48** | **13·68** | **12·70** | **4·83** | **0·64** | **0·27** | **0·71** | **45·83** |

No. 52. RANIKHET.

Latitude N. 29° 38′. Longitude E. 79° 29′. Elevation 6,069 feet.

Administration: N.-W. Provinces. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | 1·20 | 4·20 | ... | 0·50 | 5·70 | 9·50 | 12·80 | 9·70 | 4·20 | ... | ... | 2·45 | 50·25 |
| 1872 | 3·64 | 3·15 | 0·34 | 2·99 | 1·44 | 0·72 | 9·09 | 15·89 | 8·46 | ... | 0·60 | 0·59 | 55·91 |
| 1873 | 0·58 | 0·22 | 0·71 | ... | 2·83 | 0·57 | 9·37 | 6·75 | 4·80 | 0·05 | ... | 0·56 | 26·44 |
| 1874 | 1·67 | 2·37 | 3·56 | 0·65 | 0·56 | 11·61 | 17·00 | 18·53 | 5·82 | ... | ... | ... | 61·17 |
| 1875 | 0·21 | 4·82 | ... | 0·20 | 3·79 | 5·31 | 21·08 | 7·78 | 10·07 | 0·32 | ... | ... | 53·58 |
| 1876 | ... | 1·01 | 3·09 | 2·28 | 3·15 | 0·62 | 8·89 | 14·11 | 6·98 | 2·66 | ... | ... | 42·79 |
| 1877 | 3·36 | 2·25 | 2·87 | 2·46 | 2·12 | 4·58 | 11·80 | 2·79 | 0·72 | 1·57 | 0·10 | 5·51 | 40·13 |
| 1878 | 3·99 | 3·42 | 2·15 | 7·01 | 8·07 | 0·65 | 11·49 | 11·16 | 2·48 | 0·06 | ... | 0·21 | 50·69 |
| 1879 | 0·23 | 1·55 | 3·16 | 0·53 | 0·20 | 9·66 | 21·78 | 13·30 | 1·94 | 2·40 | ... | 1·22 | 55·97 |
| 1880 | 0·89 | 3·23 | ... | 0·26 | 3·25 | 6·13 | 9·70 | 4·82 | 23·40 | ... | 1·54 | 2·66 | 55·28 |

RANIKHET—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1881 | 0·53 | 1·58 | 6·24 | 1·28 | 2·87 | 8·01 | 12·10 | 10·02 | 5·80 | ... | ... | ... | 48·43 |
| 1882 | 2·98 | 1·92 | 0·39 | 0·87 | 2·40 | 9·14 | 15·84 | 11·38 | 1·35 | ... | 0·35 | ... | 46·62 |
| 1883 | 2·64 | ... | 4·48 | 0·36 | 3·53 | 2·12 | 5·95 | 7·69 | 7·39 | ... | 1·22 | 0·17 | 35·55 |
| Mean | 1·73 | 2·29 | 2·06 | 1·45 | 3·09 | 5·97 | 13·00 | 10·31 | 6·42 | 0·54 | 0·29 | 0·92 | 48·07 |
| 1884 | ... | 0·70 | 1·46 | 0·65 | 1·85 | 7·07 | 9·64 | 12·52 | 9·94 | 8·87 | 0·44 | 0·01 | 53·15 |
| 1885 | 5·32 | 0·74 | 0·98 | 0·79 | 2·41 | 8·46 | 12·60 | 17·95 | 0·93 | 0·07 | ... | 3·17 | 53·42 |
| 1886 | 3·19 | 0·98 | 6·20 | 0·14 | 3·34 | 3·42 | 14·02 | 21·14 | 2·07 | 0·93 | 0·10 | 0·02 | 55·55 |
| Mean | 1·90 | 2·01 | 2·23 | 1·27 | 2·97 | 6·04 | 12·70 | 11·60 | 6·02 | 1·06 | 0·27 | 1·00 | 49·07 |

No. 53. ALMORA.

Latitude N. 29° 35′. Longitude E. 79° 41′. Elevation 5,494 feet.

Administration: N.-W. Provinces. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | 1·11 | 4·20 | 12·80 | 14·64 | 5·06 | ... | ... | 0·22 | ? |
| 1845 | 1·21 | 4·49 | 2·74 | 0·98 | 2·52 | 6·01 | 16·46 | 6·38 | 0·60 | ... | ... | 1·15 | 42·54 |
| 1846 | 0·28 | 1·03 | 0·88 | 0·50 | 2·70 | 7·15 | 11·08 | 5·88 | 9·16 | 0·05 | ... | 0·15 | 38·86 |
| 1847 | 3·11 | 1·24 | 0·78 | 1·42 | 1·15 | 7·01 | 10·93 | 5·23 | 2·55 | 1·83 | 3·85 | ... | 39·10 |
| 1848 | 0·45 | 2·47 | 1·04 | ... | 3·18 | 3·44 | 5·80 | 6·45 | 4·00 | 0·45 | ... | 0·39 | 27·67 |
| 1849 | 1·40 | 1·34 | 0·09 | 0·28 | 0·73 | 5·67 | 2·72 | 9·44 | 6·94 | 1·17 | 0·10 | 0·02 | 29·90 |
| 1850 | 3·00 | 2·59 | 0·99 | 1·32 | 1·86 | 4·20 | 7·19 | 10·69 | 8·34 | 0·02 | 0·63 | 0·94 | 41·77 |
| 1851 | 4·59 | 2·88 | 0·59 | 2·17 | ... | 4·72 | 8·78 | 1·55 | 4·76 | 1·87 | 0·15 | ... | 32·06 |
| 1852 | 0·71 | 1·80 | 4·74 | 1·15 | 2·35 | 4·25 | 15·64 | 7·95 | 2·10 | 0·02 | 1·00 | 0·17 | 41·88 |
| 1853 | 2·73 | 1·30 | 0·75 | 1·75 | 2·69 | 4·80 | 11·35 | 8·32 | 0·67 | 5·25 | 0·45 | ... | 40·06 |
| 1854 | 1·25 | 4·60 | 0·15 | 0·10 | 0·09 | 10·30 | 4·60 | 16·25 | 8·65 | 0·11 | ... | 0·12 | 46·22 |
| 1855 | 0·92 | ? | 0·39 | 0·35 | 0·60 | 7·50 | 11·60 | 2·42 | 6·58 | 0·30 | ... | ? | ? |
| 1856 | 1·21 | 0·45 | 1·23 | 1·50 | 2·20 | 12·30 | 12·20 | 6·65 | 6·27 | 0·15 | ... | 0·87 | 45·03 |
| 1857 | 2·75 | 1·67 | ... | 1·97 | 0·97 | 10·32 | 11·20 | 4·55 | 2·30 | 1·45 | 0·10 | ... | 37·28 |
| 1858 | 2·52 | 1·00 | 1·10 | ... | 6·70 | 3·00 | 3·62 | 11·82 | 3·50 | ... | ... | 0·17 | 33·43 |
| 1859 | 0·60 | 4·19 | 2·88 | 1·42 | 3·15 | 11·25 | 1·87 | 5·95 | 3·29 | ... | ... | 1·60 | 36·20 |
| 1860 | 1·25 | 4·19 | 0·45 | 0·15 | 0·08 | 1·80 | 4·40 | 7·00 | 2·30 | 0·30 | ... | ... | 21·92 |
| 1861 | 1·90 | 0·70 | 3·70 | ... | 1·50 | 7·10 | 10·60 | 8·40 | 2·40 | 1·30 | ... | 1·50 | 39·10 |
| 1862 | 2·70 | ... | 3·30 | 0·20 | 3·70 | 8·20 | 15·60 | 5·90 | 13·10 | 0·10 | ... | ... | 52·80 |
| 1863 | 5·70 | ... | ... | 1·40 | 0·40 | 7·90 | 8·50 | 9·80 | 2·50 | 1·50 | 0·40 | 1·00 | 39·10 |
| 1864 | 1·60 | 1·30 | 0·20 | 0·70 | 1·90 | 1·20 | 7·40 | 13·30 | 4·80 | ... | ... | ... | 32·40 |
| 1865 | 1·40 | 2·30 | 4·60 | 1·20 | 4·40 | 1·40 | 5·10 | 5·40 | 12·10 | ... | ... | 5·00 | 42·90 |
| 1866 | 3·70 | 1·70 | ... | 3·30 | 0·20 | 5·50 | 13·00 | 6·40 | 0·20 | 0·30 | ... | ... | 34·30 |
| 1867 | ... | 1·90 | 1·00 | 1·80 | 3·00 | 10·60 | 8·10 | 11·90 | 3·40 | 4·70 | ... | 0·30 | 46·70 |
| 1868 | 1·80 | 4·70 | 1·30 | 2·70 | 1·20 | 7·40 | 7·10 | 2·00 | 1·90 | ... | ... | 0·30 | 30·40 |
| 1869 | 2·20 | 1·40 | 6·20 | 0·40 | 0·70 | 4·40 | 1·90 | 5·80 | 4·70 | 4·20 | ... | 0·90 | 32·80 |
| 1870 | 0·20 | 1·00 | 3·60 | 2·10 | 0·30 | 8·00 | 9·30 | 7·30 | 3·60 | 0·30 | ... | 0·40 | 36·10 |
| 1871 | ... | 3·60 | ... | 1·00 | 5·80 | 5·60 | 9·10 | 11·60 | 2·50 | ... | ... | 2·10 | 41·30 |

ALMORA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | 5·00 | 2·00 | 2·00 | 0·70 | 1·20 | 8·20 | 9·60 | 9·00 | 5·60 | ... | ... | 0·60 | 44·50 |
| 1873 | 1·30 | ... | 0·70 | 0·50 | 4·40 | 0·80 | 12·20 | 2·80 | 3·80 | 0·30 | ... | 0·60 | 27·40 |
| 1874 | 1·70 | 2·40 | 3·50 | ... | 1·00 | 12·60 | 16·00 | 11·30 | 6·40 | ... | ... | 0·20 | 55·10 |
| 1875 | 0·20 | 4·70 | ... | 0·10 | 5·00 | 3·50 | 13·30 | 7·10 | 4·50 | ... | ... | ... | 38·40 |
| 1876 | 0·30 | 0·20 | 2·80 | 2·00 | 3·80 | 0·10 | 8·50 | 12·70 | 5·80 | 2·40 | ... | ... | 38·30 |
| 1877 | 3·50 | 2·80 | 2·70 | 1·60 | 2·50 | 3·20 | 9·00 | 6·30 | ... | 1·90 | ... | 3·70 | 37·80 |
| 1878 | 3·80 | 2·90 | 1·90 | 2·00 | 6·00 | 1·70 | 10·50 | 11·90 | 5·90 | ... | ... | ... | 46·60 |
| 1879 | 0·20 | 1·30 | 2·90 | 1·50 | ... | 8·80 | 25·20 | 13·20 | 4·30 | 3·60 | ... | 0·70 | 61·70 |
| 1880 | 1·70 | 2·50 | ... | 0·40 | 3·00 | 6·10 | 7·10 | 0·60 | 16·50 | ... | 1·20 | 1·00 | 40·10 |
| 1881 | 0·30 | 1·30 | 5·30 | 0·70 | 3·30 | 6·30 | 7·80 | 6·90 | 2·40 | 1·00 | ... | ... | 35·30 |
| 1882 | 2·40 | 0·70 | 0·30 | 0·60 | 3·20 | 6·20 | 15·60 | 6·40 | 0·60 | ... | ... | ... | 36·00 |
| 1883 | 3·60 | 0·70 | 2·80 | 0·10 | 3·20 | 2·00 | 5·70 | 5·00 | 4·20 | ... | 0·30 | ... | 27·80 |
| Mean | 1·88 | 1·98 | 1·73 | 1·03 | 2·29 | 5·87 | 9·73 | 7·82 | 4·71 | 0·86 | 0·20 | 0·64 | 38·72 |
| 1884 | ... | 0·50 | 1·30 | 0·50 | 0·80 | 7·90 | 7·98 | 11·63 | 9·75 | 5·88 | ... | ... | 46·24 |
| 1885 | 4·54 | 0·71 | 0·71 | 0·62 | 1·97 | 5·83 | 14·03 | 13·42 | 1·20 | ... | ... | 2·32 | 45·35 |
| 1886 | 2·53 | 0·59 | 5·48 | ... | 4·24 | 5·75 | 5·43 | 11·42 | 1·14 | 0·84 | ... | ... | 37·42 |
| Mean | 1·91 | 1·88 | 1·79 | 0·98 | 2·29 | 5·91 | 9·69 | 8·13 | 4·66 | 0·96 | 0·19 | 0·63 | 39·02 |

No. 54. PITHORAGARH.

Latitude N. 29° 35′. Longitude E. 80° 15′. Elevation 5,373 feet.

Administration: N.-W. Provinces. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1864 | 1·90 | 2·30 | 0·80 | 0·20 | 1·60 | 2·10 | 7·70 | 5·40 | 2·00 | 0·70 | ... | ... | 24·70 |
| 1865 | 1·90 | 4·30 | 3·40 | 4·50 | 6·50 | 4·50 | 7·80 | 11·90 | 4·80 | ... | ... | 3·90 | 53·50 |
| 1866 | 3·50 | 2·90 | ... | 2·80 | 0·30 | 3·10 | 14·50 | 9·80 | 1·60 | 1·20 | ... | ... | 39·70 |
| 1867 | ... | 2·30 | 0·30 | 2·60 | 2·90 | 19·80 | 16·70 | 12·20 | 7·00 | 5·30 | ... | 0·10 | 69·20 |
| 1868 | 2·50 | 4·90 | 3·40 | 2·80 | 2·40 | 12·00 | 17·10 | 8·40 | 4·00 | ... | ... | ... | 57·50 |
| 1869 | 2·20 | 1·00 | 4·60 | 0·40 | 2·00 | 6·80 | 8·00 | 9·40 | 8·60 | 7·10 | ... | 0·60 | 50·70 |
| 1870 | 0·10 | 0·70 | 4·10 | 1·90 | 3·40 | 12·20 | 14·30 | 12·90 | 2·90 | 0·40 | ... | 0·60 | 53·50 |
| 1871 | 2·00 | 4·20 | ... | 1·40 | 8·90 | 9·30 | 12·50 | 16·20 | 3·80 | ... | ... | 0·80 | 59·10 |
| 1872 | 4·20 | 2·10 | 1·60 | 1·20 | 1·20 | 7·50 | 13·20 | 10·30 | 5·30 | ... | ... | ... | 46·60 |
| 1873 | 0·70 | ... | 0·80 | 0·20 | 3·80 | 4·40 | 9·90 | 4·00 | 2·70 | 0·10 | ... | 0·60 | 27·20 |
| 1874 | 2·90 | 2·50 | 4·20 | ... | ... | 9·10 | 14·20 | 11·50 | 5·80 | ... | ... | ... | 50·20 |
| 1875 | 0·30 | 6·10 | ... | 2·80 | 4·50 | 11·80 | 15·10 | 8·10 | 3·10 | ... | ... | ... | 51·20 |
| 1876 | 0·20 | 0·20 | 2·80 | 1·60 | 2·80 | 3·60 | 14·00 | 8·80 | 6·90 | 0·90 | ... | ... | 41·80 |
| 1877 | 2·00 | 2·30 | 2·70 | 1·90 | 3·40 | 3·20 | 8·50 | 3·90 | 3·10 | 3·20 | ... | 5·90 | 40·10 |
| 1878 | 2·80 | 3·00 | 0·60 | 3·90 | 5·80 | 2·50 | 15·30 | 12·10 | 8·00 | ... | ... | ... | 54·00 |
| 1879 | 0·10 | 1·30 | 1·70 | ... | 0·60 | 13·70 | 21·50 | 13·80 | 3·80 | 3·10 | ... | 0·70 | 60·30 |
| 1880 | 2·00 | 8·00 | 0·30 | 1·60 | 5·60 | 4·90 | 12·10 | 4·50 | 14·50 | ... | 1·00 | 1·20 | 55·70 |
| 1881 | 0·30 | 1·00 | 6·40 | 0·10 | 2·00 | 9·80 | 9·10 | 13·40 | 3·50 | ... | ... | ... | 45·60 |

PITHORAGARH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | 2·80 | 2·50 | ... | 0·20 | 3·20 | 7·20 | 15·50 | 14·80 | 0·60 | 0·10 | ... | ... | 46·90 |
| 1883 | 2·00 | ... | 2·40 | 0·10 | 4·80 | 4·80 | 6·00 | 7·70 | 1·60 | ... | ... | ... | 29·40 |
| Mean | 1·72 | 1·58 | 2·01 | 1·48 | 3·29 | 7·62 | 12·65 | 9·96 | 4·68 | 1·11 | 0·05 | 0·72 | 47·85 |
| 1884 | ... | 0·82 | 1·90 | 0·70 | 1·81 | 4·09 | 10·43 | 12·78 | 9·86 | 6·86 | 0·09 | 0·10 | 49·44 |
| 1885 | 5·15 | 0·69 | 0·98 | 0·96 | 1·89 | 6·69 | 14·73 | 25·95 | 2·87 | 0·07 | ... | 3·53 | 63·51 |
| 1886 | 2·45 | 1·52 | 5·62 | 0·73 | 7·53 | 4·21 | 14·24 | 15·60 | 4·84 | 1·33 | ... | 0·07 | 58·14 |
| Mean | 1·83 | 2·38 | 2·11 | 1·39 | 3·34 | 7·27 | 12·71 | 11·02 | 4·83 | 1·32 | 0·05 | 0·79 | 49·04 |

No. 55. NAINITAL.

Latitude N. 29° 23′. Longitude E. 79°31′. Elevation 6,400 feet.

Administration: N.-W. Provinces. Rainfall Province No. I.

| Year | Inches of Rainfall. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1849 | 2·99 | 0·31 | 0·21 | 0·30 | 3·56 | 14·11 | 10 76 | 22·33 | 12·17 | 1·78 | 0·12 | 0·28 | 68·92 |
| 1850 | 6·87 | 5·01 | 2·11 | 2·54 | 0·94 | 6·94 | 12·36 | 33·44 | 19·89 | 0·33 | 0·52 | 1·09 | 92·04 |
| 1851 | 5·82 | 3·82 | 0·22 | 1 83 | 0·87 | 11·40 | 23·55 | 17·88 | 4·23 | 2·00 | 0·32 | 0·01 | 72·00 |
| 1852 | 1·69 | 2·27 | 8·76 | 1·39 | 6·68 | 15·21 | 40·54 | 17·24 | 17·80 | ... | 1·94 | 0·33 | 122·75 |
| 1853 | 4·11 | 2·05 | 0 78 | 1·79 | 3·16 | 16·36 | 41·35 | 39·82 | 9·22 | 12·29 | 0·06 | ... | 130·99 |
| 1854 | 2·26 | 5·99 | 0·24 | 1·30 | 2·62 | 23·03 | 12·15 | 26·05 | 20·95 | 0·26 | ... | 0·67 | 96·42 |
| 1855 | 1·30 | ... | 5·68 | 3·81 | 1·62 | 9·21 | 35·64 | 45·12 | 21·17 | 0·30 | ... | ... | 123·85 |
| 1856 | 2·17 | 0·76 | 1·73 | 1·87 | 4·20 | 32·26 | 35·60 | 19·10 | 2·61 | ... | ... | 1·30 | 101·60 |
| 1857 | 3·76 | 3·77 | 0·11 | 3 73 | 3·04 | 15 98 | 38 78 | 13·25 | 10·90 | 3·49 | 1·09 | ... | 97·90 |
| 1858 | 4·84 | 3·33 | 0 82 | 0·15 | 1·78 | 10·79 | 21·63 | 46·85 | 10·18 | 0·14 | ... | 1·50 | 102·01 |
| 1859 | 1·96 | 8·57 | 4·35 | 4·06 | 5·82 | 23·81 | 19·83 | 35·52 | 7·94 | 0·86 | ... | 4·93 | 117·65 |
| 1860 | 2·16 | 6·02 | 1·00 | 1·23 | 0·91 | 9·80 | 3·70 | 3·11 | 3·90 | 0·27 | ... | ... | 32·10 |
| 1861 | 1·20 | ... | 0·20 | ... | 0·30 | ? | ? | ? | ? | ? | ? | ? | ? |
| 1862 | ? | ? | ? | ? | ? | 33·70 | 46·60 | 22·40 | 13·60 | 1·00 | ... | ... | ? |
| 1863 | 7·10 | ... | ... | 3·10 | 0·10 | ? | 18·81 | 13·18 | 3·58 | 3·17 | 0·42 | 11·00 | ? |
| 1864 | 1·50 | 1·10 | 0 80 | 0·30 | 6·60 | 4·70 | 14·30 | 16·20 | 11·30 | 0·40 | ... | ... | 57·20 |
| 1865 | 2·80 | 1·70 | 12·40 | 2·10 | 1·30 | 6·20 | 12·80 | 20·70 | 22·10 | ... | ... | ... | 82·10 |
| 1866 | 4·90 | 3·50 | ... | 3·80 | ... | 10·60 | 29·70 | 18·10 | 2·30 | 0 50 | ... | ... | 73·40 |
| 1867 | 0·60 | 2·50 | 1·80 | 2·70 | 2·30 | 34·90 | 15·10 | 24·80 | 5·30 | 6·20 | ... | 0·50 | 96·70 |
| 1868 | 4·20 | 6·80 | 3·30 | 3·20 | 1·30 | 25·00 | 21·80 | 20·00 | 3·00 | ... | ... | 0·10 | 88·70 |
| 1869 | 3·20 | 1·80 | 8·40 | 0·10 | 0·80 | 3·60 | 9·40 | 18·80 | 13·00 | 11·80 | ... | 2·40 | 78·30 |
| 1870 | 0·20 | 1·80 | 3·50 | 1·90 | 1·80 | 15·60 | 24·10 | 42·90 | 13·40 | 0·90 | ... | 0·60 | 166·70 |
| 1871 | ... | 4·10 | ... | 1·20 | 7·90 | 20·50 | 33·20 | 14·20 | 5·70 | ... | ... | 4·40 | 91·20 |
| 1872 | 6·30 | 2·50 | 2·50 | 1·00 | 1·30 | 22·50 | 27·10 | 34·80 | 16·30 | ... | ... | 0·30 | 114·60 |
| 1873 | 2·40 | 0·70 | 1 50 | ... | 6·00 | 1·40 | 19·90 | 8·80 | 9·30 | 0·10 | ... | 0·80 | 50·90 |
| 1874 | 0·40 | 2·60 | 3·20 | 0·60 | 0·10 | 21·70 | 27·80 | 26·50 | 13·50 | ... | ... | 0·30 | 96·70 |
| 1875 | 0·80. | 7·50 | ... | 0·50 | 4·80 | 13·20 | 19·20 | 24·00 | 12·80 | 0·10 | ... | ... | 82·90 |

NAINITAL—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | 0·60 | 0·10 | 2·10 | 1·30 | 1·10 | 2·70 | 15·80 | 33·90 | 8·20 | 2·80 | ... | ... | 68·60 |
| 1877 | 7·60 | 6·00 | 3·50 | 2·60 | 3·50 | 6·70 | 20·60 | 5·90 | 0·70 | 3·10 | ... | 8·80 | 69·00 |
| 1878 | 3·30 | 1·20 | 1·60 | 6·00 | 8·50 | 2·60 | 24·20 | 19·70 | 3·10 | ... | ... | 0·40 | 70·60 |
| 1879 | 0·30 | 3·00 | 2·00 | 0·80 | 2·10 | 22·80 | 54·20 | 33·10 | 12·70 | 2·50 | ... | 1·90 | 135·40 |
| 1880 | 1·20 | 8·10 | ... | ... | 1·50 | 24·80 | 35·10 | 16·60 | 30·00 | 0·10 | 1·50 | 2·30 | 121·20 |
| 1881 | 0·40 | 1·60 | 6·70 | 0·20 | 3·00 | 13·50 | 13·30 | 21·30 | 12·40 | ... | ... | ... | 72·40 |
| 1882 | 2·90 | 1·40 | 0·20 | 0·40 | 2·50 | 18·40 | 33·60 | 42·30 | 2·60 | ... | 0·10 | ... | 104·40 |
| 1883 | 9·70 | 0·60 | 5·60 | 0·40 | 6·40 | 11·30 | 28·20 | 17·40 | 5·60 | ... | 0·70 | ... | 85·90 |
| Mean | 2·99 | 2·95 | 2·51 | 1·65 | 2·89 | 15·34 | 24·99 | 23·58 | 10·78 | 1·60 | 0·20 | 1·29 | 91·17 |
| 1884 | ... | 0·40 | 0·80 | 0·30 | 2·60 | 15·50 | 26·60 | 27·30 | 23·30 | 9·80 | 0·10 | 0·30 | 107·00 |
| 1885 | 5·50 | 0·30 | 0·20 | 0·60 | 3·10 | 1·32 | 33·60 | 35·20 | 8·70 | 0·20 | ... | 4·40 | 93·12 |
| 1886 | 2·40 | 0·70 | 5·80 | 0·70 | 6·10 | 11·50 | 16·40 | 48·40 | 2·00 | 1·90 | ... | ... | 95·90 |
| Mean | 2·96 | 2·75 | 2·49 | 1·56 | 2·98 | 14·85 | 25·04 | 25·03 | 10·82 | 1·79 | 0·19 | 1·31 | 91·77 |

No. 56. HALDWANI.

Latitude N. 29° 13′. Longitude E. 79° 34′. Elevation 1,434 feet.

Administration: N.-W. Provinces. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1864 | 0·90 | 1·40 | 0·60 | ... | 2·10 | 1·80 | 15·90 | 18·20 | 14·00 | ... | ... | ... | 54·90 |
| 1865 | 2·40 | 19·30 | 12·90 | 1·50 | 4·50 | 4·10 | 29·80 | 11·00 | 35·40 | ... | ... | 1·80 | 122·70 |
| 1866 | 1·90 | 0·60 | ... | 1·00 | ... | 4·70 | 22·80 | 11·20 | 1·20 | 0·40 | ... | ... | 43·80 |
| 1867 | ... | 1·20 | 0·80 | 1·10 | ... | 18·50 | 14·50 | 24·70 | 8·20 | 3·50 | ... | 0·20 | 72·70 |
| 1868 | 1·20 | 5·80 | 1·20 | 1·20 | 1·90 | 8·90 | 14·30 | 3·80 | 5·80 | ... | ... | ... | 44·10 |
| 1869 | 1·60 | 0·90 | 3·30 | ... | 0·20 | 3·80 | 12·20 | 32·20 | 31·00 | 8·80 | ... | 1·00 | 95·00 |
| 1870 | ... | 0·70 | 2·30 | 0·60 | ... | 17·60 | 26·00 | 29·90 | 6·50 | 0·90 | ... | 0·60 | 85·10 |
| 1871 | 3·30 | 5·30 | ... | 1·30 | 5·80 | 21·50 | 31·30 | 28 10 | 4·20 | ... | ... | 1·50 | 102 30 |
| 1872 | 2·20 | 2·80 | 1·30 | 1·60 | 0·10 | 20·80 | 22·30 | 44·00 | 15·70 | ... | ... | ... | 110·80 |
| 1873 | 1·20 | 0·10 | 0·60 | ... | 1·20 | 0·10 | 18·60 | 9·50 | 6·10 | ... | ... | 0·70 | 38·10 |
| 1874 | 0·90 | 1·20 | 4·10 | ... | ... | 19·60 | 19·20 | 22·90 | 13·70 | ... | ... | ... | 81·60 |
| 1875 | 0·20 | 3·60 | ... | ... | 1·10 | 18·80 | 19·20 | 17·90 | 6·00 | 0·40 | ... | ... | 67·20 |
| 1876 | 0·20 | ... | 1·70 | 1·50 | 1·10 | 1·20 | 23·80 | 21·10 | 5·60 | 2·10 | ... | ... | 58·30 |
| 1877 | 2·80 | 3·10 | 0·10 | 0·40 | 0·70 | 3·30 | 12·40 | 9·10 | ... | 3·30 | ... | 2·60 | 37 80 |
| 1878 | 4·70 | 1·10 | 0·60 | 3·30 | 1·10 | 6·30 | 18·40 | 19·70 | 7·30 | ... | ... | 0·20 | 62·70 |
| 1879 | ... | 1·50 | 0 70 | ... | 0·30 | 16·50 | 47·20 | 27·40 | 7·50 | 3·80 | ... | 1·10 | 106 00 |
| 1880 | 0·30 | 5·50 | ... | ... | 2·30 | 12·90 | 14·80 | 10·50 | 17·50 | ... | 1·10 | 0 80 | 65 70 |
| 1881 | ... | 0·20 | 5·20 | ... | 0·70 | 6·90 | 9·50 | 18·40 | 15·90 | ... | ... | ... | 56·80 |

HALDWANI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | 1·00 | 2·00 | ... | 0·20 | 1·30 | 17·30 | 20·80 | 38·20 | 3·80 | ... | ... | ... | 84·60 |
| 1883 | 3·70 | ... | 2·70 | ... | 2·30 | 5·60 | 17·80 | 13·10 | 8·60 | ... | ... | ... | 54·20 |
| Mean | **1·43** | **2·82** | **1·91** | **0·69** | **1·36** | **10·51** | **20·54** | **20·55** | **10·70** | **1·16** | **0·06** | **0·53** | **72·22** |
| 1884 | ... | 0·30 | 0·50 | 0·10 | 0·30 | 8·80 | 17·30 | 36·10 | 12·50 | 9·30 | ... | ... | 85·20 |
| 1885 | 2·70 | 0·90 | 0·30 | ... | 0·70 | 9·10 | 30·50 | 26·90 | 7·70 | ... | ... | 3·80 | 82·60 |
| 1886 | 1·90 | ... | 4·70 | 0·30 | 3·70 | 10·90 | 22·50 | 31·50 | 6·50 | 1·70 | ... | ... | 83·70 |
| Mean | **1·44** | **2·50** | **1·90** | **0·61** | **1·38** | **10·39** | **20·92** | **21·97** | **10·47** | **1·49** | **0·05** | **0·62** | **73·74** |

No. 57. CHAMPAWAT.

Latitude N. 29° 21′. Longitude E. 80° 7′. Elevation 5,546 feet.

Administration: N.-W. Provinces. Rainfall Province No. I.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1864 | 2·60 | 3·10 | 0·40 | 1·80 | 2·20 | 4·20 | 7·90 | 8·60 | 5·80 | 1·80 | ... | ... | 38·40 |
| 1865 | 3·40 | 5·20 | 8·10 | 1·20 | 4·10 | 0·70 | 5·40 | 10·50 | 10·50 | 0·10 | ... | 3·90 | 53·10 |
| 1866 | 4·49 | 3·60 | ... | 3·10 | 0·30 | 2·10 | 16·40 | 8·30 | 0·60 | 0·80 | ... | ... | 39·60 |
| 1867 | ... | 3·60 | 1·20 | 1·80 | 3·70 | 24·30 | 12·20 | 10·40 | 3·20 | 8·20 | ... | 0·60 | 69·20 |
| 1868 | 3·80 | 4·30 | 2·10 | 2·90 | 1·70 | 6·50 | 11·00 | 3·20 | 4·10 | ... | ... | ... | 39·60 |
| 1869 | 1·60 | 1·30 | 6·00 | 0·30 | 0·90 | 2·70 | 9·60 | 9·00 | 15·80 | 15·20 | ... | 1·50 | 63·90 |
| 1870 | 0·10 | 1·80 | 2·70 | 1·30 | 1·80 | 10·50 | 13·00 | 11·60 | 3·90 | 0·50 | ... | 0·80 | 48·00 |
| 1871 | 2·20 | 4·70 | ... | 1·80 | 16·40 | 13·20 | 17·00 | 13·60 | 2·80 | ... | ... | 1·40 | 73 10 |
| 1872 | 3·30 | 1·90 | 1·80 | ... | 0·60 | 9·90 | 10·00 | 18·60 | 6·70 | ... | ... | ... | 52·80 |
| 1873 | 1·10 | ... | 1·70 | 0·20 | 4·50 | 2·50 | 15·10 | 4·40 | 8·30 | 0·20 | ... | 0·70 | 38·70 |
| 1874 | 1·10 | 7·60 | 3·70 | ... | 0·10 | 12·60 | 19·00 | 11·50 | 11·70 | ... | ... | ... | 67·30 |
| 1875 | 1·10 | 6·70 | ... | 0·10 | 4·40 | 11·30 | 15·10 | 13·10 | 8·60 | ... | ... | ... | 60·40 |
| 1876 | 0·20 | 0·70 | 2·40 | 2·30 | 2·50 | 1·50 | 16·40 | 10·70 | 11·90 | 1·60 | ... | ... | 50·20 |
| 1877 | 2·40 | 2·20 | 3·20 | 1·50 | 4·40 | 3·50 | 11·80 | 3·10 | 2·10 | 3·80 | ... | 5·20 | 43·20 |
| 1878 | 6·10 | 2·30 | 1·80 | 5·80 | 9·10 | 4·30 | 26·50 | 21·20 | 7·30 | ... | ... | ... | 84·40 |
| 1879 | 0·20 | 1·60 | 2·80 | ... | ... | 11·00 | 32·50 | 24·00 | 4·30 | 2·10 | ... | 1·40 | 79·90 |
| 1880 | 2·50 | 10·40 | ... | 1·30 | 3·50 | 6·00 | 16·20 | 8·00 | 22·40 | ... | 2·50 | 1·40 | 74·20 |
| 1881 | 0·60 | 0·20 | 10·80 | 0·20 | 2·70 | 8·20 | 9·20 | 15·30 | 8·20 | ... | ... | ... | 55·40 |
| 1882 | 2·60 | 5·00 | ... | 0·60 | 2·90 | 9·00 | 17·00 | 17·00 | 0·50 | ... | ... | ... | 54·60 |
| 1883 | 1·70 | 0·70 | 3·50 | 0·60 | 7·90 | 3·90 | 8·20 | 8·70 | 3·50 | ... | 0·30 | ... | 39·00 |
| Mean | **2·05** | **3·35** | **2·61** | **1·34** | **3·69** | **7·39** | **14·48** | **11·54** | **7·11** | **1·72** | **0·14** | **0·85** | **56·25** |
| 1884 | 0·10 | 0·30 | 1·80 | 0·20 | 1·70 | 8·60 | 5·50 | 14·80 | 11·40 | 16·60 | ... | 0·40 | 61·40 |
| 1885 | 5·40 | 1·20 | 2·10 | 0·40 | 2·70 | 8·20 | 24·80 | 28·70 | 1·50 | 0·40 | ... | 4·30 | 79·70 |
| 1886 | 2 80 | 0·90 | 8·60 | ... | 3·10 | 4·70 | 15 20 | 9·90 | 1·60 | 0·60 | ... | ... | 47·40 |
| Mean | **2·14** | **3·01** | **2·81** | **1·19** | **3·53** | **7·37** | **14·57** | **12·36** | **6·81** | **2·26** | **0·12** | **0·94** | **57·11** |

No. 58. SAHARANPUR.

Latitude N. 29° 57′. Longitude E. 77° 36′. Elevation 903 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | 0·95 | 0·20 | 27·10 | 9·78 | 0·28 | ... | ... | ... | ? |
| 1845 | 0·15 | 5·76 | 1·35 | 0·15 | 1·04 | 3·69 | 12·57 | 9·52 | 1·87 | ... | 0·20 | 0·20 | 36·50 |
| 1846 | ... | ... | 0·60 | ... | 1·65 | 8·89 | 9·92 | 9·47 | 3·50 | ... | ... | ... | 34·03 |
| 1847 | 1·32 | 1·78 | 0·17 | ... | 0·05 | 9·79 | 13·39 | 14·17 | 6·80 | 1·00 | 0·77 | ... | 49·24 |
| 1848 | 0·43 | 0·51 | 0·17 | ... | 1·71 | 0·85 | 6·07 | 7·89 | 1·10 | 0·13 | ... | 0·96 | 19·82 |
| 1849 | 2·81 | ... | ... | ... | 0·26 | 2·26 | 5·59 | 9·75 | 4·06 | 0·03 | 0·25 | ... | 25·01 |
| 1850 | 2·60 | 3·58 | 0·19 | ... | 0·13 | 3·46 | 2·46 | 10·73 | 5·31 | ... | ... | 1·17 | 29·63 |
| 1851 | 3 82 | 1·45 | ... | 0·53 | ... | 1·10 | 5·08 | 4·41 | 0·69 | ... | 0·97 | 0·07 | 18·12 |
| 1852 | 0·07 | 0·62 | 4·90 | 0·46 | 1·56 | 4·39 | 1·65 | 11·68 | 1·68 | ... | 1·76 | 0·21 | 28·98 |
| 1853 | 2·01 | 0·70 | 0·15 | 0·59 | 0·59 | 4·57 | 12·86 | 0·96 | 0·16 | 5·33 | ... | ... | 27·92 |
| 1854 | 1·30 | 1·89 | ... | ... | 1·03 | 7·14 | 11·18 | 23·30 | 7·47 | 0·93 | 0·01 | 1·27 | 55·52 |
| 1855 | 1·09 | ... | 3·77 | 2·40 | ... | 7·64 | 24·22 | 1·06 | 5·90 | 0·15 | ? | ? | 46·23? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 0·60 | 20·60 | 4·40 | 0·10 | 0·20 | ... | ... | ? |
| 1861 | ... | ... | 0·10 | 0·30 | 0·60 | 12·30 | 20·30 | 9·90 | 5·70 | ... | ... | ... | 49·20 |
| 1862 | 0·50 | ... | 1·50 | 1·70 | 0·90 | 3·30 | 20·30 | 8·50 | 8·10 | ... | ... | ... | 44·80 |
| 1863 | 2·40 | ... | ... | 0·10 | 1·00 | 14·70 | 15·30 | 12·10 | 0·50 | 2·00 | 0·70 | 0·40 | 49·20 |
| 1864 | 0·20 | 1·00 | 0·40 | ... | 0·70 | ... | 10·50 | 14·90 | 4·90 | ... | ... | ... | 32·60 |
| 1865 | 1·20 | 3·10 | 4·50 | 0·70 | 1·40 | ... | 7·60 | 10·10 | 6·00 | 0·90 | ... | ... | 35·50 |
| 1866 | 2·00 | 1·60 | ... | 0·50 | ... | 5·10 | 11·90 | 10·60 | 0·60 | ... | ... | ... | 32·30 |
| 1867 | 0·70 | 0·80 | 0·40 | 0·60 | 1·50 | 3·00 | 22·20 | 19·60 | 1·80 | 0·10 | ... | 0·70 | 51·40 |
| 1868 | 2·50 | 4·30 | 1·00 | 1·20 | 1·10 | 4·20 | 8·10 | 1·40 | 0·30 | ... | ... | 0·10 | 24·20 |
| 1869 | 2·90 | 1·40 | 5·10 | ... | ... | 1·80 | 7·50 | 3·00 | 4·60 | ... | ... | 0·80 | 27·10 |
| 1870 | ... | 0·50 | 2·90 | 0·40 | ... | 5·20 | 13·60 | 7·10 | 6·80 | 0·60 | ... | 0·30 | 37·40 |
| 1871 | ... | 3·40 | ... | 0·10 | 0·20 | 15·40 | 14·10 | 12·90 | 6·50 | ... | ... | 0·40 | 53·00 |
| 1872 | 4·60 | 0·90 | 0·30 | 0·40 | 0·40 | 5·90 | 12·40 | 10·30 | 1·70 | ... | ... | 0·60 | 37·50 |
| 1873 | 0·40 | ... | ... | ... | 0·70 | 0·10 | 18·60 | 7·30 | 13·30 | ... | ... | 0·60 | 41·00 |
| 1874 | 3·30 | 0 50 | 1·90 | ... | 1·00 | 9.00 | 13·80 | 6·20 | 9·10 | ... | ... | 0·10 | 44·90 |
| 1875 | 0·10 | 3·00 | ... | ... | 0·70 | 0·50 | 8·20 | 14·20 | 6·80 | ... | ... | ... | 33·50 |
| 1876 | 0·40 | ... | 0·60 | 0·60 | 1·00 | 0·50 | 22·60 | 10·20 | 0·60 | 2·80 | ... | ... | 39·30 |
| 1877 | 2·90 | 3·00 | 1·80 | 0·50 | 0·80 | 1·80 | 4·80 | 1·90 | 1·80 | 1·80 | 0·40 | 7·20 | 28·70 |
| 1878 | 1·50 | 1·60 | 1·40 | 1·70 | 3·20 | 0·20 | 6·40 | 19·20 | 0·80 | ... | ... | 0·60 | 36·60 |
| 1879 | ... | 0·40 | 0·50 | ... | 0·30 | 2·70 | 3·50 | 16·20 | 1·50 | ... | ... | 0·50 | 25·60 |
| 1880 | 1·10 | 4·90 | ... | 0·50 | 1·00 | 6·60 | 16·80 | 1·20 | 10·20 | ... | 0·50 | 0 40 | 43·20 |
| 1881 | ... | 0·90 | 4·40 | 0·10 | 0·30 | 4·70 | 11·60 | 7·80 | 1·10 | ... | ... | ... | 30·90 |
| 1882 | 2·20 | 1·90 | ... | 0·20 | 0·20 | 2·00 | 18·50 | 11·90 | 5·03 | ... | ... | ... | 41·93 |
| 1883 | 3·77 | ... | 2·18 | 0·25 | 1·44 | 4·97 | 4·66 | 0·88 | 4·55 | ... | 1·05 | 0·11 | 23·86 |
| Mean | 1·42 | 1·46 | 1·18 | 0·41 | 0·78 | 4·40 | 12·39 | 9·29 | 3·92 | 0·44 | 0·19 | 0·48 | 36·36 |
| 1884 | ... | 0·84 | 0·45 | ... | ... | 3·46 | 12·29 | 18·90 | 11·52 | 2·90 | ... | ... | 50·36 |
| 1885 | 3·91 | ... | ... | ... | 1·91 | 10·57 | 7·66 | 13·81 | 1·10 | ... | ... | 8·50 | 47·46 |
| 1886 | 1·69 | 0·10 | 0·80 | ... | 2·36 | 6·13 | 6·30 | 10·70 | 2·08 | 0·05 | ... | 1·12 | 31·33 |
| Mean | 1·45 | 1·36 | 1·12 | 0·38 | 0·83 | 4·58 | 12·11 | 9·69 | 4·00 | 0·49 | 0.17 | 0·69 | 36·87 |

No. 59 ROORKEE.

Latitude N. 29° 52′. Longitude E. 77° 56′. Elevation 887 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1848 | 0·30 | 1·14 | 0·23 | ... | 5·15 | 3·34 | 11·53 | 6·30 | 2·45 | 0·18 | ... | 1·00 | 31·62 |
| 1849 | 5·72 | ... | ... | 0·15 | 0·20 | 5·22 | 8·07 | 26·30 | 7·76 | ... | 0·60 | ... | 54·02 |
| 1850 | 5·60 | 2·16 | 0·38 | 2·16 | ... | 3·07 | 7·96 | 15·53 | 13·94 | 1·65 | 0·10 | 1·48 | 53·03 |
| 1851 | 10·57 | 5·65 | 0·36 | 0·12 | ... | 2·18 | 8·63 | 3·95 | 5·74 | ... | 1·98 | ... | 39·18 |
| 1852 | 0·26 | 0·98 | 7·42 | ... | 1·98 | 15·72 | 17·84 | 26·84 | 1·45 | ... | 1·44 | 0·42 | 74·35 |
| 1853 | 4·26 | 0·81 | ... | 0·70 | 0·95 | 12·32 | 18·07 | 5·55 | 0·94 | 6·81 | 0·37 | ... | 50·78 |
| 1854 | 1·36 | 2·36 | ... | 0·08 | P | P | P | P | P | P | P | P | P |
| 1855 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | P | P | P | P | P | 2·30 | 5·20 | 5·80 | 0·20 | 0·10 | ... | ... | P |
| 1861 | 0·30 | ... | 0·60 | 0·20 | 1·20 | 6·40 | 7·60 | 13·60 | 4·20 | ... | ... | 0·40 | 34·50 |
| 1862 | 0·50 | ... | 0·40 | 0·20 | 2·60 | 4·40 | 16·50 | 11·30 | 11·50 | 0·50 | ... | ... | 47·90 |
| 1863 | 1·57 | ... | 1·46 | 0·20 | 0·57 | 9·68 | 11·34 | 19·17 | 0·58 | 1·34 | 0·40 | 0·13 | 46·44 |
| 1864 | ... | 1·67 | 0·09 | 0·28 | 0·19 | 0·43 | 10·30 | 14·69 | 4·25 | ... | ... | ... | 31·90 |
| 1865 | 0·30 | 4·40 | 2·20 | 0·40 | 3·00 | 0·50 | 14·10 | 16·40 | 10·80 | ... | ... | ... | 52·10 |
| 1866 | 2·50 | 1·10 | ... | 1·50 | ... | 4·50 | 14·10 | 10·10 | 1·60 | 1·00 | ... | ... | 36·80 |
| 1867 | 0·89 | 1·80 | 0·30 | 0·10 | 0·80 | 9·70 | 17·20 | 18·00 | 5·20 | ... | ... | 0·60 | 54·50 |
| 1868 | 2·70 | 4·20 | 1·00 | ... | 1·30 | 4·80 | 8·90 | 2·00 | 0·80 | ... | ... | 0·10 | 25·80 |
| 1869 | 2·20 | 1·00 | 2·00 | ... | ... | 2·00 | 8·50 | 5·90 | 7·70 | 1·10 | ... | 0·80 | 31·20 |
| 1870 | ... | 0·80 | 2·00 | 0·70 | 0·10 | 4·30 | 13·10 | 13·20 | 5·30 | 0·80 | ... | ... | 40·30 |
| 1871 | ... | 2·50 | ... | ... | 1·50 | 11·10 | 17·20 | 9·10 | 0·90 | ... | ... | 0·60 | 43·30 |
| 1872 | 2·50 | 0·30 | 0·30 | 0·40 | 4·60 | 4·60 | 14·10 | 21·60 | 4·40 | ... | ... | 0·30 | 53·10 |
| 1873 | 0·90 | ... | 0·20 | ... | 1·20 | ... | 15·30 | 9·90 | 13·30 | ... | ... | 0·30 | 41·10 |
| 1874 | 2·40 | 0·70 | 2·10 | ... | 0·20 | 10·20 | 15·40 | 7·90 | 3·20 | ... | ... | ... | 42·10 |
| 1875 | 0·10 | 4·20 | ... | ... | 1·70 | 0·80 | 18·20 | 12·30 | 7·00 | 0·60 | ... | ... | 44·90 |
| 1876 | 0·20 | 0·10 | 1·70 | 0·50 | 0·80 | 0·20 | 21·30 | 14·90 | 1·60 | 2·60 | ... | ... | 43·90 |
| 1877 | 3·80 | 3·10 | 2·20 | 0·20 | 0·60 | 3·00 | 4·20 | 2·10 | ... | 1·70 | ... | 3·20 | 24·10 |
| 1878 | 2·40 | 1·30 | 0·60 | 1·60 | 2·30 | ... | 12·00 | 12·10 | 1·50 | ... | ... | 0·10 | 33·90 |
| 1879 | 0·19 | 0·84 | 0·58 | 0·15 | 0·04 | 3·87 | 13·34 | 8·95 | 2·65 | 0·61 | ... | 0·18 | 31·40 |
| 1880 | 0·91 | 3·60 | ... | 0·46 | 0·97 | 5·80 | 11·02 | 2·31 | 19·21 | ... | 0·46 | 0·86 | 45·60 |
| 1881 | 0·25 | 0·32 | 4·48 | 0·15 | 0·90 | 4·50 | 11·16 | 14·82 | 4·92 | ... | ... | ... | 41·50 |
| 1882 | 2·07 | 1·41 | 0·02 | 0·15 | 0·20 | 5·37 | 17·08 | 10·21 | 1·88 | ... | ... | ... | 38·39 |
| 1883 | 5·37 | 0·02 | 1·48 | 0·32 | 1·17 | 9·53 | 10·59 | 6·07 | 4·89 | ... | 0·65 | 0·03 | 40·12 |
| Mean | 2·00 | 1·56 | 1·07 | 0·37 | 1·18 | 4·99 | 12·66 | 11·56 | 5·00 | 0·63 | 0·20 | 0·35 | 41·57 |
| 1884 | ... | 0·19 | 0·46 | .... | 0·03 | 2·11 | 12·61 | 20·27 | 12·99 | 1·30 | 0·02 | 0·02 | 50·00 |
| 1885 | 4·00 | 0·28 | 0·17 | 0·41 | 1·27 | 13·03 | 10·08 | 27·04 | 2·87 | 0·05 | ... | 2·14 | 61·34 |
| 1886 | 3·08 | 0·35 | 0·80 | ... | 1·78 | 4·61 | 9·56 | 12·01 | 1·23 | 0·37 | 0·06 | 0·10 | 33·95 |
| Mean | 2·03 | 1·44 | 1·02 | 0·35 | 1·17 | 5·14 | 12·49 | 12·31 | 5·06 | 0·63 | 0·18 | 0·39 | 42·21 |

No. 60. MUZAFFARNAGAR.

Latitude N. 29°28′. Longitude E. 77°44′. Elevation 790 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | Aprd. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | 0·85 | ... | 20·17 | 9·25 | 1·65 | ... | ... | ... | ? |
| 1845 | 0·20 | 5·40 | 2·40 | 0·90 | 2·70 | 4·35 | 13·85 | 7·07 | 1·70 | ... | ... | ... | 38·57 |
| 1846 | ... | ... | 0·90 | ... | 0·37 | ·68 | 10·50 | 5·00 | 9·15 | ... | ... | ... | 33·60 |
| 1847 | 3·02 | 1·50 | 0·20 | ... | 2·33 | 13·06 | 7·90 | 8·54 | 3·59 | 0·30 | 1·00 | ... | 41·35 |
| 1848 | 0·02 | ... | ... | ... | 2·50 | 1·80 | 3·00 | 9·30 | 0·70 | 0·20 | ... | 0.60 | 18·12 |
| 1849 | 4·00 | ... | ... | ... | 0·10 | 8·25 | 13·50 | 22·00 | 12·30 | 0·10 | 020 | ... | 60·45 |
| 1850 | 2·54 | 1·50 | 0·55 | 1·20 | ... | 1·41 | 1·44 | 18·01 | 7·44 | 0·30 | 0·20 | 0·10 | 34·69 |
| 1851 | 6·01 | 4·25 | ... | 0·53 | ... | 1·34 | 12·68 | 4·81 | ... | ... | 0·02 | 0·08 | 29·72 |
| 1852 | 0·11 | 0·37 | 5·68 | ... | 1·71 | 6·09 | 2·06 | 16·90 | ... | ... | ... | 0·40 | 33·32 |
| 1853 | 2·65 | ... | 1·20 | 0·94 | 0·90 | 4·50 | 21·81 | 2·10 | 0·30 | 0·55 | ... | ... | 34·95 |
| 1854 | 0·26 | 0·84 | ... | ... | 0·04 | 3·82 | 4·93 | 8·20 | 5·99 | 1·39 | 0·11 | 1·46 | 27·04 |
| 1855 | 0·98 | 0·04 | 2·74 | 1·77 | ... | 6·98 | 19·49 | 0·32 | 5·41 | 0·15 | ? | ? | 37·88? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 0·60 | 3·30 | 3·70 | 1·50 | ... | ... | ... | ? |
| 1861 | 0·40 | ... | 0·20 | ... | 0·20 | 9·20 | 9·80 | 7·90 | 1·20 | ... | ... | 0·20 | 29·10 |
| 1862 | 0·10 | ... | 0·80 | ... | 0·50 | 3·10 | 11·00 | 5·80 | 12·40 | 0·10 | ... | ... | 33·80 |
| 1863 | 1·00 | ... | ... | ... | 0·10 | 6·50 | 17·40 | 5·20 | 0·90 | 1·50 | 0·60 | ... | 33·20 |
| 1864 | 0·10 | 0·30 | 0·20 | 0·50 | 1·40 | 0·50 | 6·70 | 11·50 | 4·40 | ... | ... | ... | 25·60 |
| 1865 | 0·80 | 0·80 | 3·70 | 0·20 | 2·70 | 0·30 | 5·10 | 10·80 | 6·50 | ... | ... | ... | 30·90 |
| 1866 | 2·40 | 0·80 | ... | 2·00 | ... | 1·00 | 8·50 | 12·70 | 0·20 | ... | ... | ... | 27·60 |
| 1867 | 0·50 | 0·90 | 0·50 | 0·70 | 1·30 | 1·80 | 12·20 | 12·70 | 2·30 | 2·10 | ... | 0·60 | 35·60 |
| 1868 | 2·30 | 2·50 | 1·10 | 0·10 | 0·10 | 1·50 | 9·10 | 0·50 | 0·40 | ... | ... | 0·20 | 17·80 |
| 1869 | 2·20 | 1·50 | 2·80 | ... | ... | 0·70 | 8·80 | 3·90 | 4·10 | 0·40 | ... | 0·40 | 24·80 |
| 1870 | ... | ... | 1·50 | 0·30 | 0·30 | 13·20 | 11·80 | 6·60 | 7·20 | ... | ... | ... | 40·90 |
| 1871 | 0·20 | 3·00 | ... | 0·20 | 0·90 | 4·70 | 14·50 | 9·20 | 1·20 | ... | ... | 1·30 | 35·20 |
| 1872 | 2·30 | 0·80 | 0·20 | ... | 0·40 | 2·90 | 10·40 | 8·00 | 7·10 | ... | ... | 0·40 | 32·50 |
| 1873 | 0·90 | ... | 0·10 | ... | 0·70 | 0·10 | 14·00 | 6·30 | 7·10 | 0·20 | ... | 0·20 | 29·60 |
| 1874 | 0·20 | 1·20 | 1·00 | 0·20 | 0·20 | 5·00 | 16·30 | 5·70 | 14·00 | ... | ... | ... | 43·80 |
| 1875 | 0·20 | 1·80 | ... | ... | 0·90 | 0·50 | 11·10 | 10·90 | 7·00 | 0·60 | ... | ... | 33·00 |
| 1876 | ... | ... | 0·30 | 0·70 | 0·80 | 0·50 | 13·70 | 4·00 | 0·90 | 2·30 | ... | ... | 23·20 |
| 1877 | 3·10 | 2·90 | 1·60 | 0·50 | 3·40 | 5·40 | 1·20 | 3·20 | 0·10 | 3·50 | 0·20 | 3·10 | 28·20 |
| 1878 | 2·70 | 0·50 | 0·80 | 3·10 | 1·90 | 0·30 | 7·10 | 16·20 | 2·60 | ... | ... | 0·30 | 35·50 |
| 1879 | ... | 0·40 | 0·40 | ... | ... | 2·50 | 10·30 | 7·30 | 1·90 | ... | ... | 0·40 | 23·20 |
| 1880 | ... | 1·40 | ... | ... | 1·10 | 5·60 | 10·60 | 2·10 | 19·80 | ... | 0·40 | 1·00 | 42·00 |
| 1881 | ... | 0·30 | 4·30 | 0·20 | 1·30 | 2·00 | 9·00 | 9·90 | ... | ... | ... | ... | 27·00 |
| 1882 | 1·30 | 0·70 | ... | 0·60 | 0·50 | 0·90 | 16·95 | 4·86 | 5·51 | ... | ... | ... | 31·32 |
| 1883 | 3·55 | 0·07 | 1·58 | ... | 2·10 | 6·42 | 3·87 | 0·20 | 3·95 | ... | 0·57 | ... | 22·31 |
| Mean | 1·30 | 0·99 | 1·02 | 0·43 | 0·92 | 3·74 | 10·39 | 7·80 | 4·46 | 0·38 | 0·09 | 0·31 | 31·83 |
| 1884 | ... | 0·10 | ... | ... | ... | 3·95 | 9·09 | 10·47 | 14·60 | 1·40 | ... | ... | 39·61 |
| 1885 | 4·08 | ... | ... | 0·19 | 1·76 | 5·05 | 13·83 | 7·86 | 0·17 | ... | ... | 0·90 | 34·74 |
| 1886 | 1·35 | ... | 0·92 | ... | 1·60 | 4·71 | 7·20 | 10·95 | 3·00 | 0·40 | ... | 0·15 | 30·28 |
| Mean | 1·34 | 0·92 | 0·96 | 0·40 | 0·94 | 3·82 | 10·36 | 7·95 | 4·57 | 0·40 | 0·09 | 0·31 | 32·06 |

No. 61. BIJNOR.

Latitude N. 29° 23'. Longitude E. 78° 11'. Elevation 771 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | 0·72 | 0·34 | 16·78 | 14·38 | 0·24 | ... | ... | ... | ? |
| 1845 | 0·15 | 4·16 | 1·90 | 0·18 | 0·51 | 1·50 | 12·12 | 2·86 | 2·33 | ... | ... | ... | 25·71 |
| 1846 | ... | ... | 0·60 | ... | 0·37 | 9·99 | 14·45 | 5·51 | 7·07 | ... | ... | ... | 37·99 |
| 1847 | 0·98 | 0·97 | 0·49 | ... | 0·90 | 9·72 | 8·93 | 9·04 | 6·05 | 0·79 | 0·55 | ... | 38·42 |
| 1848 | 0·17 | 0·64 | ... | ... | 0·73 | 0·53 | 2·42 | 4·85 | 2·13 | 0·15 | ... | 0·29 | 11·91 |
| 1849 | 3·37 | ... | 0·04 | ... | 0·42 | 4·66 | 7·29 | 12·10 | 7·74 | ... | ... | ... | 35·62 |
| 1850 | 2·09 | 1·56 | 0·42 | 1·16 | ... | 6·39 | 4·06 | 9·71 | 12·27 | 0·58 | ... | 0·60 | 38·84 |
| 1851 | 3·08 | 2·85 | 0·07 | 0·96 | 0·02 | 1·47 | 10·15 | 4·90 | 1·65 | ... | ... | ... | 25·15 |
| 1852 | 0·26 | 0·27 | 3·47 | 1·13 | 1·56 | 5·48 | 6·11 | 16·26 | 1·13 | ... | 0·07 | ... | 35·77 |
| 1853 | 2·27 | 0·78 | 0·33 | 0·84 | 0·47 | 8 88 | 7·56 | 1·04 | 0·53 | 3·13 | 0·10 | ... | 25·93 |
| 1854 | 0·50 | 2·04 | ... | ... | 0·57 | 9·37 | 10·29 | 17·74 | 7·05 | 0·37 | ... | 1·26 | 49·19 |
| 1855 | 0·57 | ... | 3·64 | 1·81 | ... | 10·54 | 20·89 | 0·90 | 8·11 | ... | ? | ? | 46·46? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 2·20 | 2·30 | 5·70 | 1·90 | 0·50 | ... | ... | ? |
| 1861 | 0·50 | ... | 0·70 | ... | 0·30 | 10·10 | 7·30 | 5·50 | 4·10 | ... | ... | 0·70 | 29·20 |
| 1862 | 1·10 | ... | 1·10 | 0·10 | 1·00 | 5·30 | 8·10 | 10·10 | 8·70 | 2·90 | ... | ... | 38·40 |
| 1863 | 1·00 | ... | ... | 1·30 | 1·60 | 6·00 | 9·60 | 5·10 | 0·90 | 0·50 | 0·70 | ... | 26·70 |
| 1864 | 0·50 | 0·50 | ... | 0·20 | 0·60 | 0·90 | 10·40 | 13·40 | 8·60 | ... | ... | ... | 35·10 |
| 1865 | 0·30 | 3·00 | 2·40 | 0·20 | 2·50 | 0·50 | 9·50 | 12·80 | 4·60 | ... | ... | ... | 35·80 |
| 1866 | 1·60 | 0·80 | ... | 1·30 | ... | 2·30 | 10·20 | 8·90 | 1·30 | ... | ... | ... | 26·40 |
| 1867 | 0·40 | 1·60 | 0·40 | 0·50 | 1·40 | 13·00 | 8·20 | 22·30 | 1·10 | 0·10 | ... | 0·50 | 49·50 |
| 1868 | 1·70 | 3·80 | 1·70 | 1·20 | 0·20 | 3·70 | 15·10 | 0·50 | 0·50 | ... | ... | ... | 28·40 |
| 1869 | 1·80 | 1·00 | 2·00 | ... | ... | 0·60 | 3·90 | 4·20 | 16·00 | 3·00 | ... | 0·70 | 33·20 |
| 1870 | ... | 0·30 | 2·20 | 0·50 | ... | 4·90 | 11·50 | 15·60 | 7·40 | 0·40 | ... | ... | 42·80 |
| 1871 | ... | 2·40 | ... | 0·10 | 2·80 | 9·90 | 13·10 | 10·90 | 5·50 | ... | ... | 1·70 | 46·40 |
| 1872 | 4·80 | 0·70 | 0·30 | 0·10 | 0·30 | 5·70 | 12·70 | 11·40 | 6·70 | ... | ... | 0·40 | 43·10 |
| 1873 | 0·80 | 0 30 | 0·60 | ... | 1·10 | 0·40 | 14·50 | 5·00 | 17·50 | 0·20 | 0·90 | ... | 41·30 |
| 1874 | 2·00 | 0·80 | 1·60 | ... | ... | 8·80 | 23·00 | 8·40 | 7·30 | ... | ... | ... | 51·90 |
| 1875 | ... | 3·40 | ... | ... | 1·00 | 2·40 | 14·30 | 16·70 | 11·80 | 0·80 | ... | ... | 50·40 |
| 1876 | 0·10 | 0·10 | 0·30 | 1·10 | 1·20 | 0·60 | 18·90 | 6·60 | 3·70 | 1·20 | ... | ... | 33·80 |
| 1877 | 2·10 | 2·10 | 1·10 | ... | 0·70 | 2·00 | 1·70 | 0·90 | 0·50 | 2·00 | ... | 3·20 | 16·30 |
| 1878 | 1·90 | 0·30 | 0·40 | 4·00 | 1·50 | ... | 6·30 | 16·50 | 5·40 | ... | ... | 0·80 | 37·10 |
| 1879 | 0·10 | 1·60 | 1·10 | 0·10 | ... | 2·70 | 13·00 | 18·40 | 3·20 | 0·20 | ... | 0·80 | 41·20 |
| 1880 | 0·10 | 1·80 | ... | ... | 0·20 | 7·30 | 12·10 | 0·10 | 26·90 | ... | 0·30 | 0·50 | 49·30 |
| 1881 | 0·10 | 0·60 | 3·30 | ... | 1·90 | 4·20 | 12·40 | 17·10 | 1·30 | ... | ... | ... | 40·90 |
| 1882 | 1·50 | 0·90 | ... | 0·20 | 1·20 | 3·00 | 15·70 | 14·00 | 2·47 | ... | ... | ... | 38 97 |
| 1883 | 2·62 | ... | 1·06 | ... | 0·53 | 5·79 | 5·68 | 5·10 | 4·11 | ... | ... | ... | 24·89 |
| Mean | 1·13 | 1·16 | 0·92 | 0·50 | 0·75 | 4·75 | 10·57 | 9·29 | 5·77 | 0·47 | 0·07 | 0·33 | 35·71 |
| 1884 | ... | ... | 0·52 | ... | ... | 2·90 | 13·04 | 19·59 | 15·67 | 3·02 | ... | ... | 54·74 |
| 1885 | 5·43 | ... | 0·18 | 0·10 | ... | 9·94 | 15·24 | 11·40 | ... | ... | ... | 1·24 | 43·53 |
| 1886 | 1·60 | ... | 2·42 | ... | 2·16 | 5·56 | 7·19 | 11·73 | 2·58 | 0·22 | ... | ... | 33·46 |
| Mean | 1·23 | 1·06 | 0·93 | 0·46 | 0·75 | 4·86 | 10·67 | 9·67 | 5·80 | 0·51 | 0·07 | 0·33 | 36·34 |

No. 62. MEERUT.

Latitude N. 29° 1′. Longitude E. 77° 41′. Elevation 737 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | 0·10 | ... | 11·64 | 8·84 | 1·00 | ... | ... | 0·22 | ? |
| 1845 | 0·18 | 5·18 | 0·71 | 0·02 | 1·13 | 3·10 | 17·68 | 3·05 | 0·27 | ... | ... | ... | 31·32 |
| 1846 | ... | ... | ... | ... | ... | 12·40 | 12·62 | 2·22 | 2·10 | ... | ... | ... | 29·34 |
| 1847 | 0·70 | 1·10 | 0·47 | ... | ... | 9·95 | 13·20 | 6·75 | 5·20 | ... | 0·05 | ... | 37·42 |
| 1848 | 0·30 | 0·35 | 0·30 | ... | 4·45 | 0·30 | 2·95 | 8·60 | 0·97 | 1·00 | ... | ... | 19·22 |
| 1849 | 3·33 | ... | 0·20 | ... | 0·40 | 5·45 | 9·20 | 6·68 | 11·65 | ... | 0·35 | ... | 37·26 |
| 1850 | 2·50 | 1·42 | 0·20 | 0·65 | ... | 0·53 | 2·42 | 9·51 | 6·57 | 0·06 | ... | 0·34 | 24·20 |
| 1851 | 1·54 | 1·92 | 0·25 | 0·37 | ... | 1·00 | 13·02 | 5·17 | ... | ... | ... | ... | 23·27 |
| 1852 | 0·17 | 0·55 | 2·40 | 0·15 | 2·30 | 4·10 | 4·30 | 7·98 | 2·15 | ... | 0·15 | ... | 24·25 |
| 1853 | 1·90 | 0·50 | 0·30 | 0·20 | 0·54 | 11·45 | 11·64 | 3·40 | ... | 2·10 | ... | ... | 32·03 |
| 1854 | ... | 1·07 | ... | ... | 0·88 | 3·28 | 2·79 | 8·73 | 4·92 | 0·97 | 0·04 | 1·07 | 23·75 |
| 1855 | 0·64 | 0·03 | 2·21 | 0·68 | ... | 4·25 | 17·48 | 0·35 | 4·41 | ... | ? | ? | 30·05? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | ... | 1·40 | 6·20 | 1·30 | ... | ... | ... | ? |
| 1861 | 0·10 | ... | 0·60 | ... | 0·30 | 7·00 | 16·50 | 3·90 | 2·90 | ... | ... | 0·50 | 31·80 |
| 1862 | 0·20 | ... | 0·30 | ... | 0·30 | 4·20 | 13·40 | 3·50 | 8·00 | 0·10 | ... | ... | 30·00 |
| 1863 | 1·10 | ... | ... | ... | ... | 5·20 | 13·70 | 4·60 | ... | 0·70 | 0·60 | ... | 25·90 |
| 1864 | ... | 0·10 | ... | 0·40 | 0·30 | 0·90 | 4·60 | 7·50 | 4·20 | ... | ... | ... | 18·00 |
| 1865 | 0·30 | 1·00 | 1·30 | 0·20 | 2·70 | 2·00 | 1·00 | 10·10 | 4·60 | ... | ... | ... | 23·20 |
| 1866 | 1·40 | 0·30 | ... | 1·30 | ... | 0·70 | 10·60 | 12·00 | 1·40 | 0·20 | ... | ... | 27·90 |
| 1867 | ... | 0·70 | 0·70 | 1·40 | 1·40 | 1·70 | 13·10 | 12·50 | 2·30 | 0·90 | ... | 0·70 | 35·40 |
| 1868 | 1·00 | 0·90 | 0·30 | 1·00 | 0·90 | 0·90 | 10·20 | ... | 0·40 | ... | ... | ... | 15·60 |
| 1869 | 0·90 | 0·50 | 2·40 | ... | ... | ... | 6·60 | 2·60 | 6·00 | 1·20 | ... | 0·20 | 20·40 |
| 1870 | ... | ... | 1·60 | 1·30 | ... | 13·90 | 11·00 | 7·60 | 4·20 | ... | ... | 0·40 | 40·00 |
| 1871 | ... | 2·40 | ... | 1·10 | 3·00 | 5·90 | 10·00 | 8·20 | 0·20 | ... | ... | 1·60 | 32·40 |
| 1872 | 3·20 | 0·10 | 0·30 | ... | 0·10 | 1·80 | 10·80 | 10·30 | 1·90 | ... | ... | 0·50 | 29·00 |
| 1873 | 0·40 | ... | 1·10 | ... | 0·50 | 0·20 | 9·50 | 6·30 | 7·70 | 0·70 | ... | 0·20 | 26·60 |
| 1874 | 1·50 | ... | 1·30 | ... | ... | 9·20 | 12·70 | 8·70 | 4·10 | ... | ... | ... | 37·50 |
| 1875 | ... | 1·40 | ... | ... | 1·10 | 0·20 | 7·60 | 8·20 | 15·20 | ... | ... | ... | 33·70 |
| 1876 | ... | ... | 0·50 | 1·30 | 0·90 | 0·90 | 7·70 | 1·10 | 2·80 | 0·90 | ... | ... | 16·10 |
| 1877 | 2·20 | 2·80 | 1·00 | 1·30 | 1·30 | 2·50 | 0·80 | ... | 0·10 | 6·00 | ... | 3·80 | 21·80 |
| 1878 | 1·80 | 1·10 | 0·40 | 2·10 | 1·60 | 0·30 | 3·50 | 14·40 | 2·50 | ... | ... | 0·30 | 28·00 |
| 1879 | 0·56 | 1·32 | 0·75 | 0·30 | 0·05 | 1·87 | 12·49 | 13·81 | 3·10 | 0·40 | ... | 0·92 | 35·57 |
| 1880 | 0·24 | 1·35 | ... | ... | 0·62 | 6·62 | 16·40 | 1·65 | 16·95 | ... | 0·40 | 1·03 | 45·26 |
| 1881 | 0·07 | 0·21 | 4·50 | 0·35 | 0·44 | 1·31 | 8·77 | 16·95 | 0·24 | 0·02 | ... | ... | 32·86 |
| 1882 | 1·03 | 0·52 | ... | 0·35 | 1·05 | 2·11 | 14·11 | 6·12 | 3·31 | ... | ... | ... | 28·60 |
| 1883 | 2·51 | ... | 1·08 | ... | 0·42 | 2·12 | 4·65 | 0·94 | 4·87 | ... | 0·14 | 0·03 | 16·76 |
| Mean | 0·88 | 0·79 | 0·74 | 0·43 | 0·77 | 3·54 | 9·45 | 6·62 | 3·82 | 0·42 | 0·05 | 0·34 | 27·85 |
| 1884 | ... | 0·08 | 0·35 | 0·14 | 0·02 | 2·55 | 5·98 | 15·28 | 14·41 | 2·41 | 0·08 | 0·02 | 41·32 |
| 1885 | 4·73 | ... | 0·34 | 0·26 | 0·66 | 3·28 | 8·16 | 15·01 | 0·27 | ... | ... | 0·64 | 33·35 |
| 1886 | 1·37 | 0·16 | 1·31 | ... | 3·70 | 5·95 | 6·15 | 11·41 | 3·47 | 0·58 | ... | 0·25 | 34·35 |
| Mean | 0·97 | 0·73 | 0·73 | 0·40 | 0·82 | 3·57 | 9·24 | 7·18 | 3·99 | 0·47 | 0·05 | 0·33 | 28·48 |

No. 63. BULANDSHAHR.

Latitude N. 28° 24′. Longitude E. 77° 54′. Elevation 727 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | 1·71 | 0·70 | 8·15 | 12·90 | 5·20 | ... | ... | ... | ? |
| 1845 | 1·10 | 4·70 | 0·90 | ... | ... | 2·60 | 20·85 | 7·01 | 0·20 | ... | ... | 0·50 | 37·86 |
| 1846 | 0·10 | ... | 0·86 | ... | 0·65 | 15·35 | 8·70 | 5·50 | 9·60 | 1·30 | ... | ... | 42·06 |
| 1847 | 1·10 | 1·30 | ... | ... | 0 15 | 7·30 | 10·33 | 5·70 | 2·54 | 1·30 | 0·50 | ... | 30·22 |
| 1848 | 0·29 | 0·50 | ... | ... | ... | ... | 2·77 | 3·90 | 2·18 | 1·00 | ... | 0·30 | 10·94 |
| 1849 | 1·92 | ... | ... | ... | 0·33 | 3·56 | 11·38 | 1·33 | 4·05 | ... | 0·32 | ... | 22·89 |
| 1850 | 3·32 | 1·20 | 0·35 | ... | ... | 0·80 | 1·17 | 1·70 | 4·90 | ... | ... | 0·30 | 13·74 |
| 1851 | 2·80 | 0·55 | 0·50 | 0·14 | ... | 1·25 | 10·17 | 3·50 | 0·72 | ... | ... | ... | 19·63 |
| 1852 | ... | 0·12 | 3·51 | 0·55 | 1·45 | 4·34 | 6·00 | 7·07 | 0·15 | ... | 0·03 | 0·03 | 23·25 |
| 1853 | 3·07 | 3·05 | 0·02 | 0·01 | 0·09 | 3·07 | 8·06 | 1·01 | ... | 0·09 | ... | ... | 18·47 |
| 1854 | 0·04 | 6·07 | ... | 1·07 | 0·21 | 4·51 | 3·26 | 17·76 | 6·07 | 1·04 | ... | 1·46 | 41·49 |
| 1865 | 0·60 | 0·11 | 0·88 | 1·18 | ... | 2·33 | 17·58 | 0·53 | 5·92 | 0·03 | ? | ? | 29·16? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | ... | 0·70 | 0·40 | ... | ... | ... | ... | ? |
| 1861 | 0·50 | ... | ... | ... | 1·60 | ? | ? | ? | ? | ? | ? | ? | ·? |
| 1862 | ? | ? | ? | ? | ? | 4·30 | 12·60 | 5·80 | 7·80 | 0·40 | ... | ... | ? |
| 1863 | 1·30 | ... | ... | ... | ... | 2·50 | 9·00 | 7·20 | 0·30 | 0·50 | 0·30 | ... | 21·10 |
| 1864 | ... | 0·80 | ... | 0·50 | ... | ... | 5·50 | 2·90 | 5·00 | ... | ... | ... | 14·70 |
| 1865 | ... | 1·00 | 0·50 | 0·10 | 1·50 | 0·30 | 1·60 | 11·90 | 2·30 | ... | ... | ... | 19·20 |
| 1866 | 0·50 | ... | ... | 0·80 | ... | 1·20 | 6·50 | 10·40 | 3·30 | 0·70 | ... | ... | 23·40 |
| 1867 | 1·00 | 1·10 | 0·10 | 1·70 | 1·30 | 1·00 | 13·20 | 17·70 | 0·10 | 2·20 | ... | 1·00 | 40·40 |
| 1868 | 0·80 | 0·30 | 0·20 | 1·40 | 1·00 | 1·50 | 6·60 | 0·20 | 1·20 | ... | ... | ... | 13·20 |
| 1869 | 1·10 | 0·40 | 1·20 | ... | ... | ... | 5·80 | 4·60 | 6·60 | 2·30 | ... | 1·70 | 23·70 |
| 1870 | ... | ... | 1·90 | 0·30 | 0·40 | 6·60 | 11·70 | 6·00 | 4·70 | 0·40 | ... | 0·40 | 32·40 |
| 1871 | ... | 0·70 | ... | ... | 1·40 | 3·70 | 9·10 | 7·50 | 4·10 | ... | ... | 1·20 | 27·70 |
| 1872 | 0·70 | 0·20 | ... | 0·10 | ... | 2·30 | 9·70 | 12·60 | 2·80 | ... | ... | ... | 28·40 |
| 1873 | 0·30 | 0·20 | 0·10 | ... | 1·90 | 0·30 | 11·30 | 7·00 | 13·00 | 0·80 | ... | 0·10 | 35·00 |
| 1874 | 0·30 | 0·70 | 0·30 | ... | ... | 6·40 | 12·10 | 10·90 | 1·70 | ... | ... | ... | 32·40 |
| 1875 | ... | 1·30 | ... | ... | 0·60 | ... | 6·10 | 11·70 | 16·20 | 0·20 | ... | 0·10 | 36·20 |
| 1876 | ... | ... | 0·60 | ... | 1·10 | 1·50 | 5·40 | 4·90 | 5·60 | 0·90 | ... | ... | 20·00 |
| 1877 | 0·90 | 1·50 | 0·50 | ... | 0·10 | ... | 6·10 | 0 10 | ... | 3·40 | ... | 4·10 | 16·70 |
| 1878 | 0·90 | 0·50 | ... | 0·90 | 0·80 | 0·30 | 2·40 | 9·90 | 1·40 | ... | ... | 0·80 | 17·90 |
| 1879 | 0·10 | 0·60 | 0·10 | ... | ... | 3·10 | 18·60 | 14·40 | 7·00 | 2·20 | ... | 1·50 | 47·60 |
| 1880 | 0·20 | 0·60 | ... | ... | 0·30 | 7·50 | 11·70 | 0·60 | 5·00 | ... | 0·60 | 0·60 | 27·10 |
| 1881 | 0·40 | 0·20 | 2·80 | ... | 0·10 | 1·80 | 7·70 | 6·70 | 0·30 | ... | ... | ... | 20·00 |
| 1882 | 0·30 | 1·30 | ... | ... | 0·60 | 3·30 | 10·70 | 3·90 | 2·50 | ... | ... | ... | 22·60 |
| 1883 | 2·80 | ... | 1·00 | ... | 2·30 | 3·70 | 5·70 | 0·70 | 5·30 | ... | ... | ... | 21·50 |
| Mean | 0·80 | 0·88 | 0·49 | 0·27 | 0·58 | 2·77 | 8·52 | 6·45 | 3·94 | 0·54 | 0·05 | 0·41 | 25·70 |
| 1884 | ... | ... | ... | ... | ... | 2·40 | 3·00 | 6·70 | 17·60 | 1·20 | ... | ... | 30·90 |
| 1885 | 1·10 | ... | 0·50 | 0·10 | 0·60 | 8·30 | 22·30 | 15·40 | ... | ... | ... | 1·90 | 50·20 |
| 1886 | 1·40 | ... | 1·40 | ... | 2·10 | 7·70 | 1·31 | 18·40 | 0·50 | 0·40 | ... | ... | 33·21 |
| Mean | 0·80 | 0·81 | 0·51 | 0·25 | 0·60 | 3·04 | 8·55 | 7·01 | 4·10 | 0·54 | 0·05 | 0·43 | 26·69 |

No. 64. ALIGARH.

Latitude N. 27°56′. Longitude E. 78° 7′. Elevation 606 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | ... | 0·90 | 5·86 | 10·65 | 2·77 | ... | ... | ... | ? |
| 1845 | ... | 2·10 | 0·15 | ... | 0·35 | 3·26 | 14·55 | 6·30 | 0·30 | ... | ... | 0·65 | 27·66 |
| 1846 | ... | ... | ... | ... | 0·21 | 4·06 | 7·53 | 1·31 | 2·43 | ... | ... | ... | 15·54 |
| 1847 | 1·15 | 1·75 | ... | ... | 0·35 | 5·65 | 8·55 | 8·77 | 5·92 | ... | 0·25 | ... | 32·39 |
| 1848 | 0·50 | 0·16 | ... | ... | 1·52 | 2·83 | 6·10 | 1·91 | 9·88 | 0·72 | ... | 1·01 | 24·63 |
| 1849 | 1·72 | ... | ... | 0·15 | 0·33 | 5·05 | 3·20 | 5·03 | 5·08 | ... | 0·34 | 0·17 | 21·07 |
| 1850 | 5·00 | 0·80 | ... | ... | ... | 1·95 | 4·44 | 5·71 | 5·41 | 0·44 | ... | ... | 23·75 |
| 1851 | 2·78 | 0·52 | ... | 0·16 | 0·59 | 0·32 | 16·94 | 6·06 | 1·29 | 1·43 | ... | ... | 30·09 |
| 1852 | ... | ... | 0·67 | 0·89 | 0·75 | 9·35 | 5·03 | 5·88 | 0·31 | ... | 0·13 | 0·59 | 23·60 |
| 1853 | 1·24 | 0·09 | 0·01 | 0·23 | 1·00 | 3·12 | 14·40 | ... | ... | 0·67 | ... | ... | 20·76 |
| 1854 | ... | 1·24 | ... | ... | 0·01 | 4·00 | 4·72 | 17·05 | 5·39 | 0·74 | ... | 0·80 | 33·95 |
| 1855 | 0·40 | 0·77 | 0·55 | 1·48 | ... | 2·47 | 14·47 | 0·37 | 6·24 | ... | ? | ? | 26·75? |
| 1856 | 0·22 | ... | 0·06 | 0·10 | 0·06 | 9·68 | ? | ? | ? | ? | ? | ... | ? |
| 1857 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 0·40 | 6·00 | 7·50 | 0·20 | ... | ... | ... | ? |
| 1861 | 0·60 | ... | ... | 0·50 | 0·50 | 10·60 | 23·70 | 5·70 | 9·60 | ... | ... | ... | 51·20 |
| 1862 | 0·30 | ... | 0·90 | ... | 0·60 | 3·20 | 13·40 | 8·30 | 10·10 | ... | ... | ... | 36·80 |
| 1863 | 1·00 | ... | ... | 0·20 | ... | 3·90 | 11·50 | 16·30 | 0·10 | 0·20 | ... | ... | 33·20 |
| 1864 | 0·30 | 0·10 | ... | 0·10 | 1·70 | ... | 3·30 | 2·10 | 4·50 | ... | ... | ... | 12·10 |
| 1865 | 0·80 | 0·50 | 1·50 | 0·60 | 1·50 | 0·60 | 3·20 | 6·30 | 6·30 | ... | ... | ... | 21·30 |
| 1866 | 1·40 | 0·20 | ... | 1·10 | ... | 0·50 | 10·80 | 14·20 | 1·20 | 0·30 | ... | ... | 29·70 |
| 1867 | 0·40 | ... | 1·00 | 0·50 | 0·80 | 1·10 | 12·80 | 7·90 | 1·40 | 1·00 | ... | 0·90 | 27·80 |
| 1868 | 0·60 | 2·10 | 0·40 | 0·20 | 1·80 | 0·70 | 4·60 | 0·30 | 0·50 | ... | ... | ... | 11·20 |
| 1869 | 1·20 | 0·20 | 1·30 | ... | ... | ... | 4·70 | 6·20 | 5·90 | 5·80 | ... | 0·90 | 26·20 |
| 1870 | 0·30 | ... | 4·20 | ... | ... | 7·40 | 7·60 | 6·80 | 2·10 | ... | ... | 0·90 | 29·30 |
| 1871 | ... | 2·80 | ... | ... | 0·60 | 4·70 | 15·10 | 7·30 | 0·80 | ... | ... | 1·00 | 32·30 |
| 1872 | 0·80 | ... | ... | ... | 0·30 | 2·90 | 11·20 | 13·50 | 1·50 | ... | ... | ... | 30·20 |
| 1873 | 0·70 | ... | ... | ... | 1·10 | 0·40 | 10·40 | 4·70 | 13·60 | ... | ... | ... | 30·90 |
| 1874 | 0·20 | ... | ... | ... | 0·20 | 2·30 | 15·60 | 8·90 | 5·20 | ... | ... | ... | 32·40 |
| 1875 | ... | 1·50 | ... | ... | 0·60 | 0·80 | 3·80 | 8·20 | 8·60 | ... | ... | 0·40 | 23·90 |
| 1876 | ... | ... | 0·50 | 0·10 | 0·20 | 0·90 | 7·10 | 5·80 | 4·80 | 1·10 | ... | ... | 20·50 |
| 1877 | 0·40 | 1·30 | 0·70 | ... | 0·10 | ... | 3·00 | ... | ... | 3·60 | ... | 2·00 | 11·10 |
| 1878 | 0·50 | 0·10 | 0·20 | 0·40 | ... | ... | 4·40 | 13·70 | 10·60 | ... | ... | 0·20 | 30·10 |
| 1879 | 0·20 | ... | 0·20 | ... | ... | 5·80 | 14·80 | 11·30 | 2·40 | 1·20 | ... | 0·60 | 36·50 |
| 1880 | ... | 0·30 | ... | 0·10 | ... | 0·40 | 7·30 | 0·10 | 5·20 | ... | 0·10 | 0·50 | 14·00 |
| 1881 | ... | 0·60 | 1·90 | ... | 0·40 | 2·40 | 10·10 | 12·00 | 0·30 | ... | ... | ... | 27·70 |
| 1882 | 0·20 | 0·20 | ... | 0·20 | 0·30 | 8·20 | 11·10 | 2·69 | 1·89 | ... | ... | ... | 24·78 |
| 1883 | 2·83 | ... | 0·66 | 0·30 | 1·12 | 5·50 | 8·42 | 1·06 | 1·01 | ... | ... | ... | 20·90 |
| Mean | 0·74 | 0·50 | 0·43 | 0·21 | 0·47 | 3·12 | 9·16 | 6·66 | 3·97 | 0·48 | 0·02 | 0·30 | 26·06 |
| 1884 | 0·10 | ... | ... | ... | 0·50 | 3·99 | 8·15 | 11·73 | 23·25 | 3·40 | ... | ... | 51·12 |
| 1885 | 0·60 | ... | 0·31 | 0·03 | 1·11 | 7·44 | 12·98 | 14·43 | ... | ... | ... | 0·40 | 37·30 |
| 1886 | 0·45 | ... | 0·90 | ... | 1·19 | 7·32 | 12·22 | 6·60 | 7·50 | 0·45 | ... | ... | 36·63 |
| Mean | 0·71 | 0·46 | 0·42 | 0·19 | 0·52 | 3·35 | 9·31 | 6·99 | 4·45 | 0·54 | 0·02 | 0·28 | 27·24 |

No. 65. RUDARPUR.

Latitude N. 28° 58′. Longitude E. 79° 27′. Elevation 718 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1850 | P | P | P | P | 1·80 | 4·32 | 2·75 | 14·00 | 6·22 | ... | ... | ... | P |
| 1851 | 2·00 | 1·91 | ... | ... | ... | 6·15 | 7·60 | ... | 1·05 | 1·17 | ... | ... | 19·88 |
| 1852 | ... | ... | 4·61 | 0.30 | 0·95 | 9·50 | 11·10 | 16·50 | 4·46 | ... | ... | ... | 47·42 |
| 1853 | 3·40 | 2·00 | ... | 0·31 | 0·50 | 5·60 | 17·65 | 6·40 | 0·50 | 2·20 | ... | ... | 38·56 |
| 1854 | 0·34 | 2·34 | ... | ... | P | P | P | P | P | P | P | P | P |
| 1855 to 1863 | Not on record. | | | | | | | | | | | | |
| 1864 | 0·50 | 1·00 | 0·10 | ... | 0·90 | 0·10· | 18·80 | 7·90 | 9·70 | ... | ... | ... | 39·00 |
| 1865 | 2·60 | 2·50 | 2·80 | 0·70 | 2·90 | 1·60 | 15·80 | 9·20 | 10·10 | ... | ... | 1·40 | 49·60 |
| 1866 | 1·80 | 0·90 | ... | 0·90 | ... | 3·60 | 15·40 | 7·60 | 2·80 | 0·30 | ... | ... | 33·30 |
| 1867 | 0·50 | 2·30 | 0·60 | ... | 0·60 | 20·00 | 10·50 | 16·90 | 1·60 | 3·00 | ... | 0·30 | 56·30 |
| 1868 | 0·30 | 2·90 | ... | 1·80 | 0·60 | 5·70 | 14·50 | 3·20 | 0·30 | ... | ... | ... | 29·30 |
| 1869 | 1·50 | 0·20 | 1·80 | ... | ... | 1·50 | 8·20 | 10·20 | 15·90 | 6·10 | ... | 1·80 | 47·20 |
| 1870 | 0·10 | 1·10 | 1·10 | 0·40 | ... | 12·10 | 10·50 | 15·00 | 3·30 | ... | ... | ... | 43·60 |
| 1871 | 2·60 | 1·60 | ... | 0·40 | 9·80 | 11·70 | 28·40 | 12·10 | 7·20 | ... | ... | 1·10 | 74·90 |
| 1872 | 3·00 | 0·60 | 1·80 | 0·30 | 0·70 | 4·70 | 16·10 | 13·10 | 9·10 | ... | ... | ... | 49·40 |
| 1873 | 0·20 | ... | 0·10 | ... | 0·20 | 0·30 | 13·10 | 5·70 | 7·70 | ... | ... | ... | 27·30 |
| 1874 | ... | 1·10 | 1·40 | ... | ... | 4.50 | 25·00 | 14·00 | 9·40 | ... | ... | ... | 55·40 |
| 1875 | ... | 4·00 | ... | ... | 0·10 | 4·80 | 19·70 | 8·10 | 4·70 | ... | ... | ... | 41·40 |
| 1876 | ... | ... | 0·30 | 0·60 | ... | 0·30 | 12·70 | 7·00 | 2·30 | 1·30 | ... | ... | 24·50 |
| 1877 | 3·20 | 1·50 | 0·40 | 0·30 | 0·20 | 3·90 | 6·60 | 3·60 | ... | 2·50 | ... | 3·80 | 26·00 |
| 1878 | 1·70 | ... | 0·40 | 0·80 | 1·10 | 1·10 | 18·80 | 28·20 | 4·00 | ... | ... | ... | 56·10 |
| 1879 | ... | 1·40 | 0·40 | ... | 2·00 | 7·60 | 27·20 | 27·30 | 3·90 | 3·70 | ... | 0·40 | 73·90 |
| 1880 | 0·20 | 2·50 | ... | ... | 2·00 | 11·00 | 8·40 | 1·10 | 15·50 | ... | 1·40 | 0·40 | 42·50 |
| 1881 | 0·10 | 0·80 | 5·50 | ... | 1·30 | 7·00 | 14·30 | 8·20 | 4·90 | ... | ... | ... | 41·60 |
| 1882 | 0·50 | 0·60 | ... | ... | 1·00 | 5·30 | 25·20 | 21·10 | 2·10 | 0·30 | ... | ... | 56·10 |
| 1883 | 3·90 | ... | 1·20 | ... | 1·70 | 6·60 | 14·10 | 5·70 | 3·80 | ... | ... | ... | 37·00 |
| Mean | 1·49 | 1·28 | 0·94 | 0·28 | 1·18 | 5·79 | 15·10 | 10·92 | 5·44 | 0·86 | 0·06 | 0·38 | 43·42 |
| 1884 | ... | ... | 0·10 | ... | 1·10 | 6·90 | 12·70 | 25·10 | 9·90 | 1·23 | ... | ... | 57·03 |
| 1885 | 2·00 | 0·40 | 0·10 | ... | 0·30 | 8·30 | 20·30 | 22·60 | 0·70 | ... | ... | 5·10 | 59·80 |
| 1886 | 1·40 | ... | 2·60 | ... | 1·70 | 8·50 | 10·70 | 14·80 | 3·40 | ... | ... | ... | 43·10 |
| Mean | 1·18 | 1·15 | 0·94 | 0·25 | 1·16 | 6·02 | 15·04 | 12·02 | 5·35 | 0·81 | 0·05 | 0·53 | 44·50 |

No. 66. PILIBHIT.

Latitude N. 28° 38′. Longitude E. 79° 51′. Elevation 614 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1864 | 0·70 | 1·30 | ... | ... | 1·60 | 0·90 | 14·00 | 8·20 | 8·20 | ... | ... | ... | 34·90 |
| 1865 | 1·90 | 1·90 | 1·30 | 0·40 | 3·20 | 2·40 | 11·10 | 10·90 | 6·60 | ... | ... | 0·20 | 39·90 |
| 1866 | 1·30 | 0·60 | ... | 0·90 | ... | 1·90 | 15·80 | 10·70 | 1·80 | 0·40 | ... | ... | 33·40 |

PILIBHIT—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | 0·40 | 1·80 | 0·20 | 0·40 | 1·00 | 20·70 | 12·20 | 16·20 | 10·10 | 5·30 | ... | 0·30 | 68·60 |
| 1868 | 0·80 | 2·50 | 0·60 | 0·50 | 1·40 | 8·80 | 9·00 | 2·40 | 11·10 | ... | ... | ... | 37·10 |
| 1869 | 1·10 | 0·20 | 1·40 | ... | ... | 7·50 | 14·10 | 9·40 | 18·90 | 6·00 | ... | 1·50 | 60·10 |
| 1870 | ... | 0·90 | 1·60 | 0·30 | 0·20 | 13·60 | 11·40 | 12 20 | 11·70 | 0·40 | ... | ... | 52·30 |
| 1871 | 1·80 | 0·90 | ... | 0·80 | 4·50 | 9·90 | 30·30 | 16·80 | 1·80 | ... | ... | 2·10 | 68·90 |
| 1872 | 1·90 | 2·00 | 0·30 | 0·50 | 0·60 | 9·90 | 14·30 | 15·40 | 19·00 | ... | ... | ... | 63·90 |
| 1873 | 0·10 | ... | 0·30 | ... | 1·70 | 0·30 | 20·20 | 5·70 | 6·80 | ... | ... | ... | 35·10 |
| 1874 | ... | 2·70 | 0·80 | ... | ... | 10·40 | 15·70 | 12·20 | 24·40 | ... | ... | ... | 66·20 |
| 1875 | 0·60 | 2·60 | ... | ... | 0·80 | 1·20 | 22·00 | 15·20 | 9·60 | 0·10 | ... | ... | 52·10 |
| 1876 | 0·10 | ... | 0·30 | 0·90 | 1·00 | ... | 15·70 | 8·50 | 9·40 | 1·80 | ... | ... | 37·70 |
| 1877 | 4·30 | 1·60 | 0·80 | 0·10 | 0·50 | 2·50 | 4·30 | 2·60 | 0·20 | 6·00 | ... | 3·50 | 26·40 |
| 1878 | 1·60 | 0·60 | ... | 1·50 | 1·40 | 3·50 | 15·80 | 16·00 | 11·80 | ... | ... | ... | 52·20 |
| 1879 | ... | 1·50 | ... | ... | ... | 7·80 | 32·80 | 30·50 | 4·10 | 0·90 | ... | ... | 77·60 |
| 1880 | 0·30 | 2·80 | ... | ... | 1·60 | 5·00 | 21·70 | 3·00 | 14·30 | ... | 0·10 | 0·30 | 49·10 |
| 1881 | ... | 0·40 | 9·40 | ... | ... | 5·90 | 13·10 | 5·50 | 2·80 | ... | ... | ... | 37·10 |
| 1882 | 0·30 | 2·10 | ... | ... | 1·70 | 5·70 | 17·00 | 15·30 | 5·80 | 0·10 | ... | ... | 48·00 |
| 1883 | 2·50 | ... | 1·40 | ... | 1·10 | 4·20 | 10·90 | 6·00 | 2·40 | ... | ... | ... | 28·50 |
| Mean | 0·99 | 1·32 | 0·92 | 0·32 | 1·12 | 6·06 | 16·07 | 11·14 | 9·04 | 1·05 | 0·01 | 0·40 | 48·14 |
| 1884 | ... | ... | ... | ... | 0·10 | 2·30 | 7·50 | 14·20 | 8·40 | 6·20 | ... | 0·20 | 38·90 |
| 1885 | 0·60 | 0·20 | 0·10 | ... | 0·60 | 10·80 | 33·60 | 28·60 | 4·80 | ... | ... | 5·20 | 84·50 |
| 1886 | 1·50 | ... | 3·10 | ... | 2·10 | 5·50 | 9·80 | 23·00 | 11·50 | 1·50 | ... | ... | 58·00 |
| Mean | 0·95 | 1·16 | 0·94 | 0·27 | 1·09 | 6·12 | 16·19 | 12·54 | 8·93 | 1·25 | ... | 0·58 | 50·02 |

No. 67. MORADABAD.

Latitude N. 28° 50′. Longitude E. 78° 50′. Elevation 655 feet.

Administration: N.-W. Provinces and Oudh. Rainfall Province No. III.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | ... | 1·22 | 11·99 | 11·97 | 2·14 | ... | ... | ... | ? |
| 1845 | 0·70 | 5·18 | 0·74 | 0·80 | ... | 4·22 | 16·26 | 4·26 | 4·46 | ... | ... | ... | 36·62 |
| 1846 | 0·58 | ... | 1·25 | ... | 0·15 | 12·58 | 20·69 | 6·80 | 7·83 | ... | ... | ... | 49·88 |
| 1847 | 1·30 | 1·02 | ... | ... | 0·69 | 4·26 | 15·06 | 4·03 | 1·93 | 0·99 | 0·59 | ... | 29·87 |
| 1848 | 0·09 | 0·15 | 0·28 | ... | 1·48 | 0·62 | 10·12 | 6·22 | 4·47 | 0·10 | ... | 0·63 | 24·16 |
| 1849 | 2·58 | ... | ... | 0·24 | 0·14 | 5·76 | 4·10 | 13·34 | 8·54 | ... | 0·23 | ... | 34·93 |
| 1850 | 3·36 | 0·90 | 0·12 | 0·67 | ... | 5·45 | 3·01 | 18·50 | 8·37 | 0·33 | ... | 0·24 | 40·95 |
| 1851 | 3·66 | 1·93 | 0·17 | 0·50 | ... | 2·72 | 14·40 | 5·09 | 4·21 | 1·31 | ... | ... | 33·99 |
| 1852 | 0·06 | 0·49 | 2·10 | 0·11 | 1·59 | 8·54 | 7·32 | 8·16 | 2·57 | 0·03 | 0·20 | 0·17 | 31·34 |
| 1853 | 1·50 | 2·75 | 0·14 | 0·35 | 1·01 | 4·73 | 16·04 | 1·31 | ... | 3·33 | 0·04 | ... | 31·20 |
| 1854 | 0·57 | 1·38 | 0·06 | 0·24 | 0·81 | 7·94 | 6·91 | 20·01 | 10·99 | 0·15 | ... | 0·50 | 49·56 |

MORADABAD—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1855 | 0·55 | 0·01 | 1·54 | 1·41 | ..A | 8·79 | 20·13 | 1·49 | 10·70 | ... | ? | ? | 44·62? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 1·50 | 8·90 | 6·50 | 0·30 | 0·10 | ... | ... | ? |
| 1861 | 0·10 | ... | 0·20 | ... | 1·00 | 7·30 | 14·70 | 8·80 | 4·90 | .. | ... | 0·40 | 37·40 |
| 1862 | 0·50 | ... | 1·70 | 0·50 | 0·60 | 6·90 | 13·40 | 5·20 | 12·30 | 0·40 | ... | ... | 41·50 |
| 1863 | 1·60 | ... | ... | 0·10 | 1·60 | 6·20 | 12·20 | 5·90 | 2·20 | 0·10 | 0·20 | 0·20 | 30·30 |
| 1864 | ... | 0·20 | ... | 0·60 | 1·70 | 2·00 | 9·40 | 11·40 | 9·80 | ... | ... | ... | 35·10 |
| 1865 | 1·90 | 1·60 | 3·50 | 0·60 | 4·50 | 2·10 | 8·20 | 9·00 | 10·90 | ... | ... | ... | 42·30 |
| 1866 | 1·60 | 0·50 | ... | 0·40 | ... | 1·40 | 14·60 | 6·30 | 1·70 | 0·30 | ... | ... | 26·80 |
| 1867 | 0·20 | 0·70 | 0·30 | 0·20 | 0·30 | 17·10 | 14·70 | 16·20 | 0·80 | 0·70 | ... | 0·70 | 51·90 |
| 1868 | 0·90 | 2·60 | 0·90 | 1·80 | 1·60 | 4·10 | 8·50 | 2·00 | 1·00 | ... | ... | ... | 23·40 |
| 1869 | 1·30 | ... | 2·00 | ... | ... | 0·70 | 6·90 | 3·20 | 9·70 | 4·50 | ... | 1·20 | 29·50 |
| 1870 | 0·10 | 1·00 | 0·90 | 0·50 | 0·40 | 17·00 | 11·50 | 12·20 | 7·20 | ... | ... | 0·20 | 51·00 |
| 1871 | 0·60 | 1·20 | ... | 0·40 | 2·50 | 13·60 | 16·40 | 10·50 | 5·20 | ... | ... | 1·10 | 51·50 |
| 1872 | 2·40 | 0·50 | ... | 0·30 | 1·10 | 2·30 | 17·10 | 14·60 | 4·90 | ... | ... | .... | 43·20 |
| 1873 | 0·50 | 0·50 | 0·70 | ... | 0·90 | 0·20 | 17·40 | 11·50 | 16·90 | 0·30 | ... | 0·20 | 49·10 |
| 1874 | 0·30 | 0·90 | 1·70 | ... | ... | 6·00 | 25·90 | 10·40 | 12·00 | ... | ... | ... | 57·20 |
| 1875 | ... | 3·40 | ... | ... | 1·50 | 1·20 | 18·60 | 16·10 | 4·80 | 0·40 | ... | ... | 46·00 |
| 1876 | ... | .. | 0·40 | 0·40 | 1·20 | 0·70 | 19·30 | 8·10 | 3·40 | 0·70 | ... | ... | 34·20 |
| 1877 | 5·30 | 2·60 | 1·30 | 0·10 | 1·10 | 0·80 | 8·00 | 2·70 | 1·40 | 7·70 | 0·90 | 5·20 | 37·10 |
| 1878 | 2·30 | 1·80 | 1·20 | 2·10 | 1·20 | 1·30 | 10·80 | 16·70 | 8·00 | ... | ... | 0·20 | 45·60 |
| 1879 | 0·10 | 0·60 | 0·60 | ... | ... | 13·50 | 35·30 | 19·90 | 5·90 | 2·00 | ... | 1·00 | 78·90 |
| 1880 | 0·40 | 2·30 | ... | ... | 0·70 | 4·90 | 11·70 | 0·60 | 13·00 | ... | 2·20 | 0·80 | 36·60 |
| 1881 | ... | 0·70 | 3·20 | ... | 0·60 | 2·70 | 12·70 | 21·00 | 0·24 | ... | ... | ... | 41·14 |
| 1882 | 0·50 | 1·30 | 0·20 | ... | 3·40 | 5·90 | 28·26 | 10·03 | 3·25 | ... | ... | ... | 52·84 |
| 1883 | 4·30 | ... | 0 80 | ... | 1·30 | 2·83 | 17·20 | 7·46 | 4·06 | ... | ... | ... | 37·95 |
| Mean | 1·17 | 1·07 | 0·76 | 0·36 | 0·94 | 5·25 | 14·10 | 9·37 | 5·84 | 0·65 | 0·12 | 0·36 | 39·99 |
| 1884 | ... | ... | 0·10 | ... | 0·20 | 7·50 | 3·80 | 14·50 | 12·40 | 6·20 | ... | 0·10 | 44·80 |
| 1885 | 1·30 | 0·80 | 0·10 | 0·10 | 1·80 | 6·35 | 13·31 | 17·00 | 1·30 | ... | ... | 2·79 | 44·85 |
| 1886 | 1·58 | 0·01 | 2·10 | ... | 2·00 | 4·97 | 12·14 | 18·85 | 6·70 | 0·50 | ... | ... | 48·85 |
| Mean | 1·15 | 1·00 | 0·77 | 0·34 | 0·98 | 5·33 | 13·77 | 9·94 | 5·91 | 0·77 | 0·11 | 0·41 | 40·48 |

No. 68. BAREILLY.

Latitude N. 28° 21′. Longitude E. 79° 27′. Elevation 568 feet.

Administration: N.-W. Provinces and Oudh. Rainfall Province No. III.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | 0·95 | 2·50 | 11·31 | 14·18 | 6·11 | ... | ... | 0·15 | ? |
| 1845 | 0·22 | 4·95 | 0·50 | 0·15 | 1·59 | 6·55 | 20·41 | 5·70 | 0·25 | ... | ... | 0·13 | 40·45 |
| 1846 | 0·85 | 0·02 | 1·10 | ... | 1·34 | 17·91 | 23·61 | 4·33 | 3·61 | ... | ... | ... | 52·77 |

BAREILLY—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1847 | 2·78 | 0·65 | ... | ... | 0·45 | 5·25 | 17·28 | 12·38 | 5·71 | 0·36 | 0·97 | ... | 45·83 |
| 1848 | 0·22 | 0·03 | ... | ... | 1·74 | 3·53 | 12·96 | 5·24 | 8·72 | 2·83 | ... | 0·62 | 35·89 |
| 1849 | 1·97 | ... | ... | ... | 0·60 | 5·50 | 1·28 | 13·04 | 4·98 | 1·21 | 0·32 | ... | 28·90 |
| 1850 | 3·75 | 0·61 | ... | ... | ... | 3·87 | 6·87 | 8·95 | 0·10 | 0·83 | ... | ... | 30·98 |
| 1851 | 2·40 | 2·87 | 0·21 | ... | ... | 2·69 | 14·03 | 5·57 | 1·67 | 1·91 | ... | ... | 31·35 |
| 1852 | ... | 0·20 | 1·55 | 0·02 | 0·09 | 14·08 | 8·54 | 6·07 | 1·83 | ... | 0·60 | 0·32 | 33·30 |
| 1853 | 2·46 | 1·07 | ... | 0·72 | 0·07 | 3·94 | 14·94 | 1·70 | 1·30 | 12·39 | ... | ... | 38·59 |
| 1854 | 0·74 | 2·01 | ... | ... | 0·80 | 14·13 | 7·65 | 12·83 | 13·61 | 0·17 | ... | 0·12 | 52·06 |
| 1855 | 0·19 | 0·15 | 0·72 | 1·08 | ... | 7·94 | 15·26 | 1·34 | 10·66 | ... | P | P | 37·34 P |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | P | P | P | P | P | ... | 7·60 | 3·80 | 3·80 | 0·20 | ... | ... | P |
| 1861 | 0·20 | ... | 0·20 | 0·20 | 0·20 | 11·90 | 21·50 | 5·00 | 10·30 | ... | ... | ... | 49·50 |
| 1862 | 0·20 | ... | 1·70 | 0·40 | 1·00 | 4·30 | 9·70 | 4·00 | 12·70 | 1·00 | ... | ... | 35·00 |
| 1863 | 1·30 | ... | ... | 0·20 | 0·60 | 6·50 | 14·80 | 8·50 | 3·70 | 2·00 | ... | ... | 37·60 |
| 1864 | 0·60 | 0·20 | ... | ... | 2·40 | ... | 15·10 | 4·70 | 9·70 | ... | ... | ... | 32·70 |
| 1865 | 1·20 | 1·20 | 1·80 | 0·30 | 2·60 | 3·10 | 15·20 | 13·80 | 9·80 | ... | ... | ... | 49·00 |
| 1866 | 0·70 | 1·30 | ... | 1·70 | ... | 2·30 | 16·40 | 8·50 | 1·10 | ... | ... | ... | 32·00 |
| 1867 | 0·50 | 1·50 | 0·50 | 0·50 | 0·70 | 8·20 | 17·80 | 15 40 | 8·10 | 3·20 | ... | 0·60 | 57·00 |
| 1868 | 1·00 | 2·10 | 0·70 | 0·40 | 2·10 | 7·20 | 10·30 | 0·80 | 4·10 | ... | ... | ... | 28·70 |
| 1869 | 1·10 | 0·20 | 2·00 | ... | ... | 0·90 | 10·00 | 6·70 | 18·10 | 3·30 | ... | 1·20 | 43·50 |
| 1870 | ... | 0·40 | 2·40 | 0·50 | 0·90 | 12·90 | 11·90 | 14·40 | 5·20 | 1·40 | ... | 0·20 | 50 20 |
| 1871 | ... | 0·80 | ... | 1·40 | 2·70 | 12·40 | 22·80 | 7·70 | 2·50 | ... | ... | 1·80 | 52·10 |
| 1872 | 2·60 | 0·20 | 0·80 | ... | 1·20 | 11·60 | 15·80 | 9·40 | 5·80 | ... | ... | ... | 47·40 |
| 1873 | 0·80 | ... | 0·50 | ... | 0·20 | 0·90 | 16·30 | 3·80 | 10·90 | ... | ... | ... | 33·40 |
| 1874 | 0·70 | 0·30 | 0·20 | ... | 0·50 | 5·80 | 15·70 | 10·00 | 24·20 | ... | ... | ... | 57·40 |
| 1875 | 0·20 | 2·30 | ... | ... | 0·10 | 2·50 | 22·90 | 14·10 | 5·30 | ... | ... | 0·10 | 47·50 |
| 1876 | ... | ... | 0·20 | 1·10 | 0·30 | 1·00 | 10·50 | 6·10 | 5·30 | 1·80 | ... | ... | 26·30 |
| 1877 | 2·20 | 1·70 | 1·40 | ... | 0·20 | 2·60 | 3·70 | 3·10 | ... | 6·60 | ... | 2·20 | 23·70 |
| 1878 | 0·90 | 0·30 | 0·20 | 0·40 | 1·00 | 6·40 | 28·00 | 10·50 | 11·10 | ... | ... | ... | 58·80 |
| 1879 | 0·02 | 0·39 | 0·76 | ... | ... | 3·69 | 34·61 | 28·75 | 8·37 | 2·58 | ... | 0·41 | 79·58 |
| 1880 | 0·12 | 1·13 | ... | 0·27 | 1·11 | 3·11 | 8·22 | 5·63 | 8·23 | ... | 0·55 | 0·58 | 28·95 |
| 1881 | 0·17 | 0·44 | 3·32 | 0·01 | 1·08 | 10·84 | 12·37 | 9·02 | 1·10 | ... | ... | ... | 38·35 |
| 1882 | 0·31 | 0·69 | 0·01 | 0·07 | 2·14 | 5·95 | 24·90 | 15·55 | 2·49 | 0·02 | ... | ... | 52·13 |
| 1883 | 2·81 | 0·01 | 2·04 | 0·15 | 1·58 | 1·23 | 9·04 | 3·46 | 3·23 | ... | 0·05 | 0·02 | 23·62 |
| Mean | 0·98 | 0·82 | 0·67 | 0·28 | 0·86 | 5·92 | 14·70 | 8·45 | 6·66 | 1·16 | 0·07 | 0·24 | 40·81 |
| 1884 | ... | 0·13 | 0·04 | ... | 0·59 | 3·77 | 6·21 | 21·07 | 13·88 | 8·25 | 0·01 | 0·09 | 54·04 |
| 1885 | 1·52 | ... | 0·18 | ... | 1·13 | 4·95 | 18·66 | 21·48 | 2·48 | ... | ... | 3·36 | 53·76 |
| 1886 | 1·03 | 0·03 | 2·98 | ... | 1·70 | 10·75 | 11·62 | 16·39 | 6·64 | 0·77 | ... | 0·02 | 51·93 |
| Mean | 0·96 | 0·75 | 0·70 | 0·26 | 0·89 | 5·97 | 14·51 | 9·31 | 6·74 | 1·30 | 0·07 | 0·31 | 41·77 |

No. 69. BUDAUN.

Latitude N. 28° 3′. Longitude E. 79° 10′. Elevation 544 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | ... | 0·01 | 1·06 | 9·90 | 1·03 | ... | ... | 0·04 | ? |
| 1845 | ... | 0·23 | 0·02 | 0·08 | 0·80 | 1·00 | 10·50 | 5·80 | 0·20 | ... | ... | 1·50 | 20·13 |
| 1846 | ... | 0·14 | 1·31 | ... | ... | 11·05 | 19·31 | 5·78 | 2·44 | ... | ... | ... | 40·03 |
| 1847 | 1·15 | 0·55 | ... | ... | 2·00 | 8·65 | 13·92 | 16·83 | 5·48 | ... | 1·17 | ... | 49·75 |
| 1848 | 0·50 | 0·32 | 0·18 | ... | 0·82 | 0·75 | 5·71 | 7·81 | 8·70 | ... | ... | 1·94 | 26·73 |
| 1849 | 3·00 | ... | ... | ... | 0·20 | 5·77 | 2·70 | 9·25 | 7·24 | 0·50 | ... | ... | 28·66 |
| 1850 | 3·65 | 1·08 | ... | ... | ... | 1·80 | 2·37 | 14·86 | 6·95 | 0·75 | ... | ... | 31·46 |
| 1851 | 3·30 | 3·30 | ... | ... | ... | 2·05 | 19·60 | 2·40 | 0·75 | 3·90 | ... | ... | 35·30 |
| 1852 | ... | 0·30 | 0·77 | 0·47 | 1·27 | 4·23 | 3·84 | 6·65 | 4·23 | ... | 0·30 | 0·40 | 22·46 |
| 1853 | 1·58 | 0·13 | ... | 1·17 | 0·68 | 1·48 | 14·32 | 3·86 | ... | 4·50 | ... | ... | 27·72 |
| 1854 | 0·20 | 0·78 | ... | ... | ... | 7·11 | 6·71 | 19·08 | 9·26 | 0·18 | ... | 0·41 | 43·73 |
| 1855 | 0·24 | 0·45 | 0·72 | 0·66 | ... | 2·64 | 13·88 | 0·50 | 7·80 | ... | ? | ? | 26·89? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | ... | 7·80 | 2·90 | 6·20 | ... | ... | ... | ? |
| 1861 | 0·90 | ... | 0·20 | 0·30 | 1·10 | 8·40 | 16·80 | 4·20 | 8·10 | ... | ... | ... | 40·00 |
| 1862 | ... | ... | 1·90 | ... | ... | 4·60 | 7·70 | 9·90 | 19·10 | 2·40 | ... | ... | 45·60 |
| 1863 | 1·20 | ... | ... | ... | 0·20 | 4·20 | 12·10 | 11·10 | 1·90 | ... | ... | ... | 30·70 |
| 1864 | 0·80 | ... | ... | 0·10 | 0·40 | 1·60 | 10·70 | 6·40 | 4·70 | ... | ... | ... | 24·70 |
| 1865 | 0·50 | 0·90 | 0·70 | 0·30 | 1·40 | 0·70 | 7·80 | 9·80 | 10·10 | ... | ... | ... | 32·20 |
| 1866 | 0·60 | 0·30 | ... | 0·20 | ... | 1·10 | 9·40 | 8·30 | 1·80 | ... | ... | ... | 21·70 |
| 1867 | 0·70 | 0·30 | ... | ... | 0·50 | 7·40 | 10·20 | 10·60 | 3·80 | 3·70 | ... | 0·30 | 37·50 |
| 1868 | 0·70 | 1·80 | ... | 0·20 | 1·00 | 1·20 | 8·50 | 0·90 | 3·80 | ... | ... | 1·00 | 18·80 |
| 1869 | 0·60 | 0·30 | 1·00 | ... | ... | 0·60 | 5·90 | 4·70 | 12·10 | 2·40 | ... | ... | 27·60 |
| 1870 | ... | 0·30 | 1·10 | ... | 0·40 | 8·70 | 9·20 | 10·00 | 11·20 | 0·40 | ... | ... | 41·30 |
| 1871 | ... | 0·70 | ... | 0·30 | 0·80 | 6·50 | 19·20 | 10·50 | 2·80 | ... | ... | 1·30 | 42·10 |
| 1872 | 1·10 | 0·80 | 0·20 | ... | ... | 7·50 | 16·80 | 12·20 | 4·60 | ... | ... | 0·40 | 43·60 |
| 1873 | 1·20 | ... | 0·60 | ... | 0·50 | 0·20 | 16·20 | 6·10 | 8·40 | ... | ... | ... | 33·20 |
| 1874 | 0·70 | 0·20 | 0·70 | ... | ... | 9·50 | 20·00 | 11·10 | 18·20 | ... | ... | ... | 60·40 |
| 1875 | 0·60 | 1·50 | ... | ... | 1·40 | ... | 17·00 | 7·70 | 6·20 | ... | ... | 0·10 | 34·50 |
| 1876 | ... | ... | 0·20 | ... | ... | 0·10 | 9·30 | 5·70 | 5·80 | 1·20 | ... | ... | 22·30 |
| 1877 | 2·60 | 2·70 | 0·60 | 0·30 | 0·50 | 0·60 | 2·50 | 2·00 | 0·10 | 5·90 | ... | 1·90 | 19·70 |
| 1878 | 1·20 | 0·20 | 0·20 | ... | 1·70 | 0·30 | 21·60 | 6·90 | 8·30 | ... | ... | 0·10 | 40·50 |
| 1879 | ... | ... | 0·30 | ... | ... | 5·10 | 22·90 | 9·30 | 8·10 | 0·70 | ... | 0·30 | 46·70 |
| 1880 | ... | 0·90 | ... | 0·10 | 0·80 | 4·20 | 6·20 | 4·20 | 5·90 | ... | 0·50 | ... | 22·80 |
| 1881 | 0·10 | 0·60 | 4·10 | ... | 0·20 | 2·50 | 11·80 | 13·80 | 0·10 | ... | ... | ... | 33·20 |
| 1882 | 0·20 | 0·80 | ... | 0·10 | 0·90 | 4·60 | 10·60 | 9·50 | 0·70 | ... | ... | ... | 27·40 |
| 1883 | 2·40 | ... | 0·70 | ... | 0·78 | 0·59 | 5·09 | 2·35 | 4·19 | ... | ... | ... | 16·10 |
| Mean | 0·87 | 0·57 | 0·46 | 0·13 | 0·52 | 3·52 | 11·09 | 7·86 | 5·84 | 0·74 | 0·06 | 0·28 | 31·94 |
| 1884 | ... | ... | ... | ... | ... | 8·11 | 7·27 | 10·89 | 12·04 | 5·06 | ... | 0·12 | 43·49 |
| 1885 | 1·47 | ... | 0·30 | ... | 0·27 | 6·12 | 8·51 | 21·47 | 1·01 | 0·32 | ... | 1·75 | 41·22 |
| 1886 | 0·77 | ... | 2·66 | ... | 0·37 | 6·06 | 8·63 | 20·91 | 11·17 | 0·72 | ... | 0·20 | 51·49 |
| Mean | 0·86 | 0·52 | 0·50 | 0·12 | 0·50 | 3·77 | 10·86 | 8·62 | 6·01 | 0·84 | 0·05 | 0·31 | 32·96 |

No. 70. SHAHJAHANPUR.

Latitude N. 27° 53′. Longitude E. 79° 58′. Elevation 507 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | 1·54 | 1·35 | 11·73 | 16·62 | 6·67 | ... | ... | 0·05 | ? |
| 1845 | 0·03 | 3·37 | 0·95 | 0·13 | 1·39 | 2·84 | 17·95 | 3·87 | 4·13 | ... | ... | 0·15 | 34·81 |
| 1846 | 0·34 | 0·58 | 0·96 | ... | 3·10 | 25·83 | 21·84 | 4·02 | 11·77 | ... | ... | ... | 68·44 |
| 1847 | 0·88 | 1·21 | ... | ... | 0·31 | 3·51 | 9·85 | 4·05 | 4·74 | 2·28 | 2·27 | ... | 29·10 |
| 1848 | ... | 0·01 | ... | ... | 3·94 | 1·31 | 7·10 | 3·61 | 7·71 | ... | ... | 0·65 | 24·33 |
| 1849 | 1·43 | ... | ... | ... | 0·53 | 8·70 | 5·19 | 14·88 | 9·80 | 1·63 | 0·03 | ... | 42·19 |
| 1850 | 2·39 | 0·25 | ... | ... | ... | 4·21 | 5·15 | 10·61 | 4·44 | 0·24 | ... | ... | 27·29 |
| 1851 | 3·91 | 0·55 | ... | ... | ... | 0·71 | 12·59 | 5·79 | 7·92 | 0·20 | ... | ... | 31·67 |
| 1852 | ... | ... | 2·41 | 0·43 | 1·80 | 9·90 | 10·56 | 5·22 | 1·96 | ... | 0·35 | 0·53 | 33·16 |
| 1853 | 0·61 | 0·23 | ... | 0·20 | ... | 2·76 | 9·90 | 4·45 | 0·95 | 5·33 | ... | ... | 24·43 |
| 1854 | 0·43 | 1·88 | ... | ... | 0·71 | 12·69 | 10·10 | 23·14 | 11·88 | 0·27 | ... | 0·31 | 61·41 |
| 1855 | 0·04 | 0·95 | 0·88 | 1·02 | ... | 5·30 | 14·72 | 0·20 | 15·98 | 0·04 | ? | ? | 39·13? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 0·80 | 12·70 | 0·80 | 8·80 | 0·20 | ... | ... | ? |
| 1861 | ... | ... | 0·30 | 0·20 | 1·50 | 8·30 | 19·70 | 11·10 | 11·10 | 1·00 | ... | 0·10 | 53·30 |
| 1862 | ... | ... | 1·30 | ... | 2·50 | 7·50 | 15·90 | 8·90 | 9·30 | ... | ... | ... | 45·40 |
| 1863 | 1·10 | ... | ... | ... | 0·30 | 7·80 | 14·20 | 14·80 | 0·50 | 3·90 | ... | ... | 42·60 |
| 1864 | 0·40 | 0·60 | ... | 0·80 | 1·10 | ... | 11·60 | 4·00 | 5·40 | 0·50 | ... | ... | 24·40 |
| 1865 | 0·40 | 0·50 | 0·90 | 0·40 | 2·40 | 0·30 | 11·60 | 14·60 | 5·60 | ... | ... | ... | 36·70 |
| 1866 | 0·60 | 0·40 | ... | ... | ... | 0·40 | 11·30 | 10·20 | 4·10 | ... | ... | ... | 27·00 |
| 1867 | 0·50 | 3·00 | ... | 0·10 | 0·70 | 12·80 | 18·20 | 7·80 | 10·70 | 9·20 | ... | 0·30 | 63·30 |
| 1868 | 1·90 | 1·20 | 0·70 | 1·20 | 2·30 | 2·70 | 9·50 | 0·80 | 4·40 | ... | ... | 0·20 | 24·90 |
| 1869 | 0·90 | ... | 0·90 | ... | ... | 1·00 | 5·50 | 3·80 | 9·10 | 5·50 | ... | 1·10 | 27·80 |
| 1870 | ... | 0·30 | 1·10 | 0·20 | 1·50 | 14·30 | 8·00 | 13·60 | 6·70 | 0·10 | ... | ... | 45·80 |
| 1871 | ... | 0·40 | ... | ... | 3·90 | 7·20 | 19·70 | 10·40 | 3·90 | ... | ... | 2·60 | 48·10 |
| 1872 | 4·30 | 0·40 | 0·70 | ... | 0·40 | 8·80 | 10·20 | 7·80 | 4·40 | ... | ... | 0·20 | 37·20 |
| 1873 | 0·70 | 0·10 | 0·20 | ... | 0·50 | 0·60 | 18·70 | 4·90 | 6·60 | ... | ... | ... | 32·30 |
| 1874 | 0·10 | 0·70 | 0·10 | ... | ... | 6·40 | 16·80 | 12·20 | 12·50 | ... | ... | ... | 48·80 |
| 1875 | 0·20 | 1·30 | ... | ... | 1·00 | 0·80 | 13·20 | 7·80 | 7·50 | ... | ... | 0·30 | 32·10 |
| 1876 | ... | ... | 0·30 | 0·50 | 0·40 | 0·60 | 9·50 | 8·20 | 6·60 | 0·40 | ... | ... | 26·50 |
| 1877 | 2·50 | 1·50 | 1·70 | 0·20 | 0·70 | 2·30 | 2·60 | 0·80 | 1·90 | 4·70 | 0·10 | 3·20 | 22·20 |
| 1878 | 1·80 | 1·20 | 0·40 | 1·20 | 1·10 | 3·20 | 18·10 | 11·90 | 15·80 | ... | ... | ... | 54·70 |
| 1879 | ... | 0·50 | 0·20 | ... | ... | 2·20 | 24·80 | 22·30 | 13·80 | 5·70 | ... | ... | 69·50 |
| 1880 | ... | 1·80 | ... | ... | 0·10 | 1·40 | 11·60 | 1·30 | 5·90 | ... | 0·50 | 0·50 | 23·10 |
| 1881 | ... | 0·30 | 4·90 | ... | 1·40 | 10·50 | 9·40 | 8·70 | 1·40 | ... | ... | ... | 36·60 |
| 1882 | 0·10 | 0·40 | ... | ... | 2·60 | 9·30 | 6·50 | 13·63 | 3·71 | 0·58 | ... | ... | 36·82 |
| 1883 | 2·42 | ... | 0·81 | ... | 1·01 | 4·11 | 8·11 | 6·91 | 2·66 | ... | ... | ... | 26·03 |
| Mean | 0·82 | 0·70 | 0·58 | 0·39 | 1·11 | 5·35 | 12·34 | 8·44 | 6·95 | 1·16 | 0·09 | 0·29 | 38·02 |
| 1884 | ... | ... | ... | ... | ... | 4·00 | 0·97 | 13·21 | 10·50 | 4·12 | ... | ... | 32·80 |
| 1885 | 1·63 | ... | ... | ... | 1·00 | 7·58 | 22·48 | 24·26 | 1·67 | 9·35 | ... | 0·90 | 59·87 |
| 1886 | 0·22 | ... | 2·17 | ... | 1·23 | 11·10 | 9·06 | 19·13 | 9·53 | 3·08 | ... | ... | 55·52 |
| Mean | 0·81 | 0·64 | 0·59 | 0·18 | 1·08 | 5·52 | 12·22 | 9·24 | 6·97 | 1·26 | 0·09 | 0 29 | 38·89 |

No. 71. FARRUKHABAD.

Latitude N. 27° 24′. Longitude E. 79° 37′. Elevation 439 feet.

Administration : N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | ... | 0·03 | 6·17 | 10·35 | 4·19 | ... | ... | ... | ? |
| 1845 | ... | 2·72 | 0·65 | ... | 0·98 | 3·47 | 9·72 | 6·92 | ... | ... | ... | 0·37 | 24·83 |
| 1846 | 0·34 | ... | ... | ... | 0·25 | 9·05 | 11·79 | 2·12 | 10·14 | 0·84 | ... | ... | 34·53 |
| 1847 | 0·68 | ... | ... | ... | ... | 2·26 | 8·01 | 10·05 | 1·58 | 2·43 | 1·41 | ... | 26·42 |
| 1848 | ... | 0·46 | ... | ... | 1·35 | 0·52 | 2·97 | 4·09 | 10·15 | ... | ... | 0·43 | 19·97 |
| 1849 | 1·58 | ... | ... | ... | 0·03 | 4·25 | 1·11 | 7·27 | 13·82 | 6·42 | ... | ... | 34·48 |
| 1850 | 2·70 | 0·37 | 0·34 | ... | ... | 0·80 | 1·91 | 7·88 | 9·88 | 0·74 | ... | ... | 24·62 |
| 1851 | 4·30 | 0·48 | 0·27 | 0·03 | 0·26 | 2·91 | 12·87 | 5·00 | 4·15 | 0·28 | ... | ... | 30·55 |
| 1852 | 0·16 | ... | 1·96 | 0·10 | 0·97 | 1·40 | 3·72 | 4·67 | 2·50 | ... | 0·04 | 0·58 | 16·10 |
| 1853 | 0·45 | ... | ... | 0·20 | 0·11 | 0·60 | 9·13 | 1·76 | 1·50 | 4·92 | ... | ... | 18·67 |
| 1854 | 0·60 | 0·20 | ... | ... | ... | 7·01 | 9·60 | 17·78 | 6·16 | 1·30 | 0·24 | 0·26 | 43·15 |
| 1855 | 0·07 | 0·64 | 1·50 | 0·81 | ... | 2·90 | 9·49 | 0·19 | 6·85 | 0·12 | ? | ? | 22·57? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 0·70 | 6·90 | 3·10 | 6·60 | ... | ... | ... | ? |
| 1861 | ... | ... | 0·60 | ... | 1·10 | 7·80 | 19·00 | 5·50 | 14·80 | ... | ... | ... | 48·80 |
| 1862 | 0·10 | ... | 0·80 | ... | 0·80 | 4·10 | 13·70 | 5·20 | 4·10 | 0·20 | ... | ... | 29·00 |
| 1863 | 0·80 | ... | ... | 0·10 | ... | 3·70 | 10·10 | 21·60 | 0·10 | 1·10 | ... | ... | 37·50 |
| 1864 | 0·40 | 0·70 | ... | ... | 2·00 | 0·80 | 7·20 | 10·20 | 4·20 | ... | ... | ... | 25·50 |
| 1865 | 0·50 | 0·10 | 0·60 | 0·50 | 1·10 | 0·20 | 6·70 | 9·10 | 8·00 | ... | ... | ... | 26·80 |
| 1866 | 0·50 | ... | ... | ... | ... | 1·10 | 13·90 | 7·00 | 2·10 | ... | ... | ... | 24·60 |
| 1867 | 1·60 | 0·30 | ... | ... | 1·20 | 6·80 | 17·10 | 10·10 | 5·80 | 6·60 | ... | 0·30 | 49·20 |
| 1868 | 0·60 | 0·10 | 0·20 | 0·10 | 1·10 | 0·40 | 3·60 | 3·50 | 6·00 | ... | ... | ... | 15·60 |
| 1869 | 0·20 | 0·10 | 0·50 | ... | ... | 0·30 | 11·90 | 5·00 | 10·40 | 4·00 | ... | 1·80 | 34·20 |
| 1870 | ... | ... | 0·90 | ... | 1·30 | 9·30 | 8·10 | 12·70 | 9·80 | ... | ... | ... | 42·10 |
| 1871 | ... | 0·60 | ... | 0·10 | 2·20 | 8·10 | 12·10 | 6·20 | 1·60 | ... | ... | 1·00 | 31·90 |
| 1872 | 2·00 | 0·50 | ... | ... | ... | 2·00 | 18·10 | 9·90 | 1·50 | ... | ... | ... | 34·00 |
| 1873 | 0·50 | 0·40 | 2·40 | ... | 0·10 | 0·70 | 11·50 | 6·40 | 7·30 | ... | ... | ... | 29·30 |
| 1874 | 0·20 | ... | ... | ... | ... | 12·10 | 16·30 | 12·70 | 8·80 | ... | ... | ... | 50·10 |
| 1875 | 0·20 | 1·00 | ... | ... | 0·40 | 1·60 | 11·50 | 7·90 | 5·00 | ... | ... | 0·20 | 27·80 |
| 1876 | ... | ... | 0·30 | 0·10 | ... | 0·30 | 9·00 | 2·90 | 12·10 | 1·00 | ... | ... | 25·70 |
| 1877 | 1·50 | 0·60 | 0·40 | 0·40 | ... | 0·50 | 3·40 | 2·30 | ... | 6·10 | 0·10 | 5·10 | 20·40 |
| 1878 | 1·30 | ... | ... | 0·40 | 0·30 | 1·90 | 8·30 | 6·60 | 5·30 | ... | ... | ... | 24·10 |
| 1879 | 0·20 | 0·10 | 0·20 | ... | ... | 6·70 | 20·80 | 19·20 | 4·50 | 1·10 | ... | 0·20 | 53·00 |
| 1880 | ... | 0·80 | ... | ... | 1·55 | 1·50 | 8·10 | 0·85 | 3·00 | ... | ... | 0·25 | 16·05 |
| 1881 | ... | 0·15 | 1·90 | ... | 1·00 | 4·15 | 8·05 | 11·95 | 0·30 | ... | ... | ... | 27·50 |
| 1882 | 0·10 | 0·20 | ... | ... | 1·03 | 6·15 | 9·12 | 4·39 | 0·74 | ... | ... | ... | 21·73 |
| 1883 | 2·32 | ... | 0·45 | ... | 0·70 | 1·22 | 7·06 | 6·82 | 4·69 | ... | ... | ... | 23·26 |
| Mean | **0·69** | **0·31** | **0·41** | **0·08** | **0·57** | **3·26** | **9·67** | **7·48** | **5·49** | **1·03** | **0·05** | **0·30** | **29·34** |
| 1884 | ... | ... | ... | ... | 1·05 | 5·77 | 3·92 | 11·75 | 10·38 | 2·20 | ... | ... | 35·07 |
| 1885 | 0·46 | ... | ... | 0·40 | 0·55 | 10·89 | 14·47 | 26·91 | 1·53 | 0·34 | ... | 0·89 | 56·44 |
| 1886 | 0·29 | ... | 0·58 | ... | 0·16 | 10·95 | 13·95 | 11·19 | 1·50 | 2·90 | ... | ... | 41·52 |
| Mean | **0·65** | **0·28** | **0·39** | **0·09** | **0·58** | **3·72** | **9·75** | **8·19** | **5·41** | **1·09** | **0·05** | **0·30** | **30·50** |

No. 72. ETAH.

Latitude N. 27° 34′. Longitude E. 78° 42′. Elevation 540 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1860 | ? | ? | ? | ? | ? | 0·90 | 6·30 | 6·50 | 2·20 | ... | ... | ... | ? |
| 1861 | 0·20 | ... | 0·10 | ... | 0·50 | 3·80 | 16·10 | 9·80 | 8·20 | ... | ... | ... | 38·70 |
| 1862 | 0·20 | ... | 2·40 | ... | 1·00 | 4·50 | 7·40 | 6·10 | 11·20 | ... | ... | ... | 32·80 |
| 1863 | 0·80 | ... | ... | ... | ... | 3·90 | 17·00 | 12·50 | ... | 0·10 | ... | ... | 34·30 |
| 1864 | 0·60 | ... | ... | ... | ... | 0·10 | 8·00 | 10·90 | 6·00 | ... | ... | ... | 25·60 |
| 1865 | ... | 0·80 | 2·10 | 0·40 | ... | ... | 5·20 | 17·00 | 6·00 | ... | ... | 0·10 | 31·60 |
| 1866 | 0·20 | ... | ... | ... | ... | 0·70 | 11·60 | 12·90 | 1·40 | ... | ... | ... | 26·80 |
| 1867 | 0·30 | 0·80 | 0·70 | 0·50 | 2·70 | 3·20 | 22·90 | 12·90 | 4·00 | 2·10 | ... | 0·70 | 50·80 |
| 1868 | 0·30 | 0·40 | ... | 0·40 | 0·80 | 1·30 | 5·60 | 1·50 | 0·50 | ... | ... | ... | 10·80 |
| 1869 | 0·60 | 0·20 | 1·00 | ... | ... | 0·10 | 6·00 | 3·10 | 8·00 | 7·30 | ... | 0·50 | 26·80 |
| 1870 | ... | ... | 1·90 | ... | ... | 5·60 | 5·60 | 7·90 | 4·40 | ... | ... | ... | 25·40 |
| 1871 | 0·40 | 0·20 | ... | 0·30 | 1·70 | 3·90 | 10·40 | 5·70 | 2·60 | ... | ... | 1·00 | 26·20 |
| 1872 | 0·30 | 0·70 | 0·60 | ... | ... | 4·00 | 13·10 | 8·90 | 2·60 | ... | ... | 0·10 | 30·30 |
| 1873 | 0·50 | ... | 0·60 | ... | 1·30 | 0·20 | 12·30 | 6·80 | 3·60 | ... | ... | 0·10 | 25·40 |
| 1874 | 0·10 | ... | ... | ... | ... | 3·50 | 11·40 | 12·30 | 6·60 | ... | ... | ... | 33·90 |
| 1875 | 0·40 | 1·10 | ... | ... | 0·30 | 0·10 | 3·70 | 7·30 | 6·90 | ... | ... | 0·70 | 20·50 |
| 1876 | ... | ... | 0·40 | ... | 0·30 | 0·50 | 13·10 | 3·70 | 6·30 | 1·60 | ... | ... | 25·90 |
| 1877 | 1·40 | 0·20 | 0·50 | 0·60 | 0·10 | 1·60 | 2·70 | 0·20 | 0·20 | 4·90 | 0·10 | 2·10 | 14·60 |
| 1878 | 0·40 | 0·10 | ... | 0·30 | 0·40 | 1·30 | 7·30 | 5·60 | 4·50 | ... | ... | ... | 19·90 |
| 1879 | 0·30 | ... | 0·10 | ... | ... | 8·20 | 10·70 | 22·90 | 3·20 | 0·80 | ... | 0·10 | 46·30 |
| 1880 | ... | 0·10 | ... | ... | ... | 0·70 | 4·70 | 2·60 | 4·90 | ... | 0·30 | 0·50 | 13·80 |
| 1881 | ... | 0·50 | 1·50 | ... | 0·20 | 4·50 | 13·00 | 14·90 | 0·70 | ... | ... | ... | 35·30 |
| 1882 | 0·20 | ... | ... | ... | ... | 9·30 | 17·50 | 7·30 | 0·30 | ... | ... | ... | 34·60 |
| 1883 | 2·30 | ... | 0·20 | ... | 1·20 | 2·10 | 5·60 | 3·20 | 6·40 | ... | ... | ... | 21·00 |
| Mean | 0·41 | 0·22 | 0·53 | 0·11 | 0·46 | 2·67 | 9·88 | 8·44 | 4·20 | 0·70 | 0·02 | 0·25 | 27·89 |
| 1884 | ... | ... | ... | ... | 0·40 | 1·30 | 2·80 | 10·10 | 14·10 | 6·20 | ... | 0·20 | 35·10 |
| 1885 | 0·90 | ... | ... | ... | 1·40 | 7·60 | 10·60 | 12·30 | ... | ... | ... | 0·30 | 33·10 |
| 1886 | 0·50 | ... | 2·70 | ... | 1·00 | 4·60 | 6·60 | 9·20 | 4·90 | ... | ... | ... | 29·50 |
| Mean | 0·42 | 0·20 | 0·57 | 0·10 | 0·51 | 2·87 | 9·53 | 8·67 | 4·43 | 0·85 | 0·01 | 0·24 | 28·40 |

No. 73. MAINPURI.

Latitude N. 27° 14′. Longitude E. 79° 3′. Elevation 515 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | ... | 0·73 | 5·14 | 8·47 | 2·28 | ... | ... | 0·01 | ? |
| 1845 | 0·05 | 2·25 | 0·24 | 0·20 | 1·40 | 1·10 | 7·63 | 6·30 | 1·36 | ... | ... | 0·47 | 21·00 |
| 1846 | 0·25 | ... | 0·08 | ... | 0·11 | 6·93 | 5·09 | 1·64 | 2·34 | 0·18 | ... | ... | 16·62 |
| 1847 | 1·15 | 0·65 | ... | ... | 0·37 | 0·91 | 5·30 | 5·25 | 0·67 | 0·37 | 1·10 | ... | 15·77 |
| 1848 | ... | 0·52 | ... | ... | 0·71 | 1·57 | 3·79 | 8·87 | 9·14 | 0·09 | ... | 1·70 | 26·39 |
| 1849 | 2·25 | ... | ... | ... | ... | 2·16 | 3·91 | 1·86 | 13·05 | 0·96 | ... | 0·10 | 24·29 |
| 1850 | 2·69 | 0·52 | 0·19 | 0·12 | ... | 1·00 | 5·77 | 7·55 | 7·36 | 0·38 | ... | ... | 25·58 |
| 1851 | 2·82 | 0·91 | ... | 0·07 | ... | 1·57 | 10·34 | 5·29 | 1·55 | 0·99 | ... | ... | 23·54 |
| 1852 | 0·02 | ... | 1·35 | 0·08 | 0·29 | 1·57 | 6·03 | 4·16 | 3·42 | ... | 0·30 | 0·64 | 17·86 |
| 1853 | 0·71 | ... | ... | 0·38 | 0·02 | 0·29 | 7·51 | ... | 0·20 | 2·41 | ... | ... | 11·52 |
| 1854 | 0·47 | 0·73 | ... | ... | ... | 4·79 | 7·38 | 14·73 | 5·53 | 0·83 | 0·25 | 0·34 | 35·05 |
| 1855 | 0·11 | 0·67 | 0·93 | 0·95 | ... | 2·86 | 11·93 | 0·35 | 6·91 | 0·13 | ? | ? | 24·84? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | ... | 2·80 | 4·70 | 7·00 | ... | ... | ... | ? |
| 1861 | 0·10 | ... | 0·40 | ... | 0·30 | 10·10 | 16·50 | 11·40 | 9·50 | ... | ... | ... | 48·30 |
| 1862 | 0·10 | ... | 0·70 | ... | 0·40 | 5·50 | 17·60 | 8·20 | 11 60 | 0·10 | ... | ... | 44·20 |
| 1863 | 0·50 | ... | ... | ... | ... | 3·10 | 7·80 | 7·90 | 2·00 | 0·90 | ... | ... | 22·20 |
| 1864 | 0·20 | ... | ... | ... | 0·60 | ... | 7·60 | 9·10 | 2·20 | ... | ... | ... | 19·70 |
| 1865 | 0·30 | ... | 1·00 | ... | 0·50 | 0·30 | 7·70 | 10·40 | 5·80 | ... | ... | ... | 26·00 |
| 1866 | 0·40 | ... | ... | ... | ... | 2·60 | 16·30 | 12·80 | 4·40 | ... | ... | ... | 36·50 |
| 1867 | 1·50 | 0·50 | ... | 0·50 | 1·00 | 1·20 | 17·90 | 12·20 | 4·40 | 9·10 | ... | 3·00 | 51·30 |
| 1868 | 3·10 | ... | ... | ... | 1·10 | 0·80 | 6·10 | 1·20 | 2·70 | ... | ... | ... | 15·00 |
| 1869 | 1·10 | ... | 0·10 | ... | 0·60 | 0·50 | 10·50 | 8·70 | 10·90 | 1·70 | ... | 1·30 | 35·40 |
| 1870 | 0·10 | ... | 1·80 | 0·20 | ... | 7·20 | 3·90 | 14·80 | 10·90 | 0·10 | ... | ... | 39·00 |
| 1871 | ... | 0·60 | ... | 0·40 | 1·40 | 10·50 | 12·60 | 11·40 | 5·20 | ... | ... | 1·30 | 43·40 |
| 1872 | 3·30 | 0·20 | 0·80 | 0·40 | 0·10 | 1·00 | 10·80 | 12·70 | 2·70 | ... | ... | ... | 32·00 |
| 1873 | ... | ... | 1·40 | ... | 2·00 | 0·10 | 10·00 | 2·80 | 8·50 | ... | ... | ... | 24·80 |
| 1874 | 0·10 | ... | ... | ... | ... | 8·60 | 18·10 | 14·90 | 10·40 | ... | ... | ... | 52·10 |
| 1875 | 0·20 | 1·60 | ... | ... | 1·30 | 0·10 | 15·80 | 7·10 | 11·20 | ... | ... | 0·30 | 37·60 |
| 1876 | ... | ... | 0·30 | ... | ... | 0·20 | 14·20 | 4·60 | 12·00 | 0·60 | ... | ... | 31·90 |
| 1877 | 0·70 | 0·50 | ... | 0·60 | ... | 0·30 | ... | 0·90 | 0·10 | 4·50 | ... | 3·00 | 10·60 |
| 1878 | 0·90 | ... | ... | 0·50 | 0·50 | 0·50 | 7·00 | 5·70 | 4·10 | ... | ... | ... | 19·20 |
| 1879 | 9·10 | ... | ... | ... | ... | 9·70 | 10·80 | 16·40 | 2·20 | 0·70 | ... | 0·50 | 40·40 |
| 1880 | ... | ... | ... | ... | 0·40 | 2·65 | 8·60 | 0·10 | 3·60 | ... | 0·20 | 0·30 | 15·85 |
| 1881 | ... | 0·50 | 0·30 | ... | 0·40 | 4·00 | 17·80 | 20·30 | 0·20 | ... | ... | ... | 43·50 |
| 1882 | 0·20 | 0·05 | ... | ... | 0·65 | 9·80 | 9·80 | 3·70 | 0·60 | ... | ... | ... | 24·80 |
| 1883 | 2·30 | ... | 0·60 | ... | 1·00 | 1·10 | 7·70 | 0·70 | 10·50 | ... | ... | ... | 23·90 |
| Mean | 0·76 | 0·30 | 0·30 | 0·13 | 0·43 | 2·93 | 9·38 | 7·42 | 5·46 | 0·67 | 0·05 | 0·37 | 28·20 |
| 1884 | ... | ... | ... | ... | 0·20 | 2·20 | 4·35 | 15·10 | 17·00 | 4·50 | ... | ... | 43·35 |
| 1885 | 0·20 | ... | ... | 0·20 | 0·30 | 9·10 | 8·60 | 24·60 | 0·50 | 1·00 | ... | 0·80 | 45·30 |
| 1886 | 0·20 | ... | 0·30 | ... | 1·85 | 4·80 | 10·40 | 7·30 | 5·60 | ... | ... | ... | 30·45 |
| Mean | 0·71 | 0·28 | 0·28 | 0·12 | 0·46 | 3·11 | 9·26 | 8·06 | 5·63 | 0·76 | 0·05 | 0·36 | 29·08 |

No. 74. MUTTRA.

Latitude N. 27° 30′. Longitude E. 77° 44′. Elevation 576 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | ... | 0·30 | 10·76 | 7·52 | 0·72 | ... | ... | ... | ? |
| 1845 | ... | 1·18 | ... | ... | 0·59 | 4·19 | 15·97 | 7·94 | 2·45 | ... | ... | 0·30 | 32·62 |
| 1846 | ... | ... | ... | ... | 0·20 | 4·29 | 1·85 | 1·16 | 0·31 | ... | ... | ... | 9·81 |
| 1847 | *0·70 | ... | ... | ... | 0·14 | 4·50 | 8·12 | 2·32 | 7·24 | ... | 0·19 | ... | 23·21 |
| 1848 | ... | ... | ... | ... | 1·51 | 1·36 | 4·92 | 9·62 | 3·66 | 0·05 | ... | 0·29 | 21·41 |
| 1849 | 1·10 | ... | ... | 0·20 | 0·55 | 4·29 | 3·39 | 5·71 | 7·67 | 0·11 | ... | ... | 23·02 |
| 1850 | 2·69 | 3·97 | ... | ... | ... | 1·16 | 5·13 | 4·50 | 4·46 | ... | ... | 0·05 | 21·96 |
| 1851 | 0·90 | 0·40 | 0·17 | 0·50 | ... | 0·57 | 8·54 | 10·10 | 5·20 | ... | 0·22 | ... | 26·60 |
| 1852 | ... | ... | 0·96 | 0·12 | 1·16 | 6·30 | 5·25 | 9·40 | 1·02 | 0·12 | ... | ... | 24·33 |
| 1853 | 0·32 | ... | ... | 0·84 | 0·34 | 5·84 | 12·78 | 1·04 | 0·62 | 2·80 | ... | ... | 24·58 |
| 1854 | ... | 0·76 | ... | ... | 0.04 | 3·48 | 4·89 | 8·63 | 3·71 | 1·02 | ... | 1·02 | 23·55 |
| 1855 | 0·29 | 0·15 | 0·31 | 1·70 | 0·02 | 2·98 | 15·99 | 0·07 | 5·61 | 0·02 | ? | ? | 27·14? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | ... | 10·60 | 0·90 | 0·10 | ... | ... | ... | ? |
| 1861 | 0·10 | ... | ... | ... | 0·30 | 3·70 | 16·40 | 8·40 | 7·30 | ... | ... | ... | 36·20 |
| 1862 | 0·20 | 0·20 | 0·70 | ... | 0·20 | 3·50 | 9·60 | 5·10 | 4·20 | 0·90 | ... | ... | 24·60 |
| 1863 | 0·70 | ... | ... | 0·30 | 0·60 | 4·00 | 18·10 | 5·60 | 0·10 | 0·40 | ... | ... | 29·80 |
| 1864 | ... | 0·70 | ... | ... | 1·00 | 0·10 | 6·10 | 12·80 | 3·40 | ... | ... | ... | 24·10 |
| 1865 | 0·40 | 0·10 | 0·30 | 0·50 | 2·20 | 1·20 | 0·90 | 10·50 | 6·40 | ... | ... | ... | 22·50 |
| 1866 | 1·20 | ... | ... | ... | ... | 1·00 | 12·30 | 14·00 | 2·50 | 0·40 | ... | ... | 31·40 |
| 1867 | ... | ... | 0·50 | ... | ... | 1·70 | 10·10 | 11·50 | 1·60 | ... | ... | 2·00 | 27·40 |
| 1868 | 1·00 | 0·20 | 0·20 | ... | 0·20 | 2·60 | 7·60 | 0·80 | 1·00 | ... | ... | ... | 13·60 |
| 1869 | 1·20 | 0·20 | 1·50 | ... | ... | 1·30 | 4·90 | 7·10 | 5·10 | 1·00 | ... | 0·50 | 22·80 |
| 1870 | ... | ... | 1·40 | 1·10 | ... | 6·80 | 10·20 | 5·80 | 2·80 | ... | ... | 0·80 | 28·90 |
| 1871 | 0·20 | 0·40 | ... | 0·20 | 2·90 | 10·00 | 15·10 | 6·30 | 3·30 | ... | ... | 1·10 | 39·50 |
| 1872 | 0·40 | ... | 0·20 | ... | 1·00 | 2·50 | 12·10 | 11·80 | 6·20 | ... | ... | 0·20 | 34·40 |
| 1873 | 0·20 | ... | ... | ... | 1·00 | 1·20 | 28·10 | 10·10 | 9·50 | 0·30 | ... | ... | 50·40 |
| 1874 | ... | ... | 0·20 | ... | 0·60 | 4·70 | 12·80 | 9·30 | 5·00 | ... | ... | ... | 32·60 |
| 1875 | 0·20 | 1·20 | ... | ... | 0·20 | 0·50 | 8·40 | 3·60 | 12·50 | ... | ... | 0·60 | 27·20 |
| 1876 | ... | ... | 0·40 | ... | 1·00 | 0·30 | 8·00 | 3·70 | 7·10 | 1·70 | ... | ... | 22·20 |
| 1877 | 0·30 | 0·90 | 0·10 | 0·20 | 0·10 | 0·30 | 0·50 | ... | ... | 6·30 | ... | 1·80 | 10·50 |
| 1878 | 0·40 | ... | 0·20 | 1·00 | 1·40 | 0·20 | 4·10 | 4·80 | 2·30 | ... | ... | ... | 14·40 |
| 1879 | 0·20 | ... | 0·20 | ... | ... | 3·40 | 7·00 | 16·20 | 5·50 | 0·30 | ... | 0·60 | 33·40 |
| 1880 | ... | 0·04 | ... | ... | 0·30 | ... | 4·40 | 1·50 | 13·00 | ... | ... | 0·20 | 19·44 |
| 1881 | ... | 0·80 | ... | 0·20 | 0·20 | 1·80 | 12·40 | 11·50 | 1·60 | ... | ... | ... | 28·50 |
| 1882 | 0·40 | 0·10 | ... | ... | 0·40 | 2·50 | 15·27 | 4·42 | 3·67 | ... | ... | ... | 26·76 |
| 1883 | 3·02 | ... | 0·14 | ... | 1·28 | 3·31 | 7·84 | 0·22 | 1·39 | ... | ... | ... | 17·20 |
| Mean | 0·47 | 0·33 | 0·22 | 0·29 | 0·56 | 2·66 | 9·46 | 6·50 | 4·17 | 0·43 | 0·01 | 0·27 | 25·2 |
| 1884 | 0·20 | ... | ... | ... | ... | 3·75 | 5·52 | 4·54 | 13·07 | 0·29 | 0·38 | ... | 27·75 |
| 1885 | 0·34 | ... | 0·15 | ... | 0·91 | 4·99 | 8·98 | 13·93 | 0·07 | ... | ... | 0·50 | 29·87 |
| 1886 | 0·45 | ... | 1·18 | ... | 0·16 | 5·40 | 13·00 | 6·42 | 0·52 | 0·30 | ... | ... | 27·43 |
| Mean | 0·46 | 0·31 | 0·24 | 0·19 | 0·54 | 2·82 | 9·43 | 6·64 | 4·20 | 0·41 | 0·02 | 0·26 | 25·52 |

No. 75. AGRA.

Latitude N. 27° 10′. Longitude E. 78° 5′. Elevation 555 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | P | P | P | P | ... | ... | 10·70 | 5·68 | 0·70 | ... | ... | 0·04 | P |
| 1845 | 0·26 | 1·39 | ... | ... | 0·42 | 5·11 | 17·38 | 13·50 | 4·04 | ... | ... | 0·45 | 42·55 |
| 1846 | 0·06 | ... | ... | ... | 2·68 | 8·56 | 3·41 | 0·55 | 3·83 | ... | ... | ... | 19·09 |
| 1847 | 1·30 | 0·45 | ... | ... | ... | 5·65 | 5·76 | 5·28 | 2·25 | 0·22 | 0·59 | ... | 21·50 |
| 1848 | ... | 0·20 | ... | ... | 1·62 | 0·35 | 4·18 | 6·86 | 1·01 | 0·05 | ... | 0·11 | 14·38 |
| 1849 | 1·15 | ... | ... | 0·04 | 0·12 | 5·81 | 2·18 | 5·24 | 10·03 | ... | ... | ... | 24·57 |
| 1850 | 2·12 | 1·99 | 0·12 | 0·20 | 0·05 | 1·00 | 4·62 | 5·85 | 2·80 | 1·75 | ... | ... | 20·50 |
| 1851 | 1·18 | 1·08 | ... | 0·20 | 0·75 | 0·30 | 9·80 | 9·95 | 3·98 | 0·57 | ... | ... | 27·81 |
| 1852 | 0·01 | 0·01 | 0·83 | ... | 2·37 | 2·74 | 7·44 | 2·00 | 1·37 | ... | 0·16 | 0·42 | 17·35 |
| 1853 | 2·40 | 0·03 | ... | 0·57 | 0·12 | 2·25 | 9·49 | ... | ... | ... | ... | ... | 14·86 |
| 1854 | 0·50 | ... | ... | ... | ... | 5·05 | 3·08 | 7·41 | 5·00 | ... | ... | ... | 21·04 |
| 1855 | 0·19 | 0·92 | 0·36 | 1·50 | ... | 2·67 | 12·60 | 0·25 | 10·69 | ... | ... | ... | 29·18 |
| 1856 | 0·47 | ... | ... | ... | 1·62 | 4·64 | 10·11 | 18·27 | 4·31 | ... | ... | ... | 39·42 |
| 1857 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | P | P | P | P | P | 0·80 | 11·80 | 2·90 | 2·80 | ... | ... | ... | P |
| 1861 | ... | ... | 0·40 | ... | ... | 6·70 | 14·10 | 4·80 | 1·10 | ... | ... | ... | 27·10 |
| 1862 | 0·30 | ... | 0·20 | ... | 0·20 | 3·20 | 8·50 | 2·60 | 6·00 | 1·00 | ... | ... | 22·00 |
| 1863 | 0·80 | ... | ... | ... | 0·10 | 2·30 | 19·10 | 7·30 | 0·70 | ... | ... | ... | 30·30 |
| 1864 | 0·20 | ... | ... | ... | 0·50 | ... | 3·80 | 8·80 | 5·50 | ... | ... | ... | 18·80 |
| 1865 | 0·70 | 0·60 | 0·50 | 1·00 | 0·50 | 1·00 | 2·00 | 12·70 | 7·60 | ... | ... | ... | 26·60 |
| 1866 | 0·40 | ... | ... | ... | ... | 0·60 | 15·50 | 7·30 | 2·50 | ... | ... | ... | 26·30 |
| 1867 | 0·30 | ... | 0·10 | ... | 0·30 | 2·70 | 11·80 | 12·90 | 1·80 | 0·70 | ... | 0·60 | 31·20 |
| 1868 | 0·80 | 0·80 | ... | 0·10 | 0·50 | 3·10 | 12·80 | 2·00 | 0·30 | ... | ... | ... | 19·90 |
| 1869 | 1·00 | 0·30 | 0·80 | ... | ... | 0·30 | 5·90 | 3·00 | 13·40 | 4·10 | ... | 0·80 | 29·60 |
| 1870 | 0·20 | ... | 2·90 | 0·40 | 0·20 | 5·90 | 8·30 | 7·10 | 0·40 | ... | ... | 0·70 | 26·10 |
| 1871 | ... | 0·20 | ... | 0·60 | 4·10 | 6·50 | 12·00 | 10·70 | 4·40 | ... | ... | 1·00 | 39·50 |
| 1872 | 1·30 | 0·20 | 0·20 | 0·30 | 1·20 | 1·50 | 6·40 | 9·00 | 6·00 | ... | ... | 0·10 | 26·20 |
| 1873 | ... | ... | 0·20 | ... | 1·50 | 2·10 | 18·80 | 13·40 | 10·50 | ... | ... | ... | 46·50 |
| 1874 | 0·10 | ... | 0·10 | ... | 1·30 | 5·80 | 12·80 | 9·70 | 1·90 | ... | ... | ... | 31·70 |
| 1875 | 0·40 | 2·20 | ... | ... | 0·70 | 0·30 | 14·00 | 2·60 | 12·50 | ... | ... | 1·10 | 33·80 |
| 1876 | ... | ... | 0·10 | ... | 0·40 | 2·90 | 8·50 | 3·30 | 11·80 | ... | ... | ... | 27·00 |
| 1877 | 0·10 | 0·20 | 0·10 | ... | 0·75 | 0·40 | 1·60 | 0·65 | 0·15 | 3·60 | ... | 2·45 | 10·00 |
| 1878 | ... | ... | 0·05 | 0·45 | 0·95 | 3·40 | 5·65 | 1·85 | 4·90 | ... | ... | ... | 17·25 |
| 1879 | 0·66 | 0·11 | 0·15 | 0·03 | ... | 3·02 | 7·93 | 10·62 | 6·60 | 0·28 | ... | 0·20 | 29·60 |
| 1880 | ... | 0·10 | ... | ... | 0·53 | 0·10 | 8·27 | 0·98 | 4·04 | ... | 0·22 | 0·75 | 14·99 |
| 1881 | ... | 0·09 | 0·06 | ... | 0·13 | 1·71 | 17·32 | 14·66 | 0·14 | ... | ... | ... | 35·01 |
| 1882 | 0·25 | 0·22 | ... | 0·27 | 0·94 | 2·66 | 15·06 | 4·44 | 2·37 | ... | ... | ... | 28·61 |
| 1883 | 1·97 | ... | 0·10 | 0·06 | 0·50 | 1·15 | 12·71 | 0·12 | 3·65 | ... | ... | ... | 20·26 |
| Mean | 0·55 | 0·30 | 0·23 | 0·16 | 0·70 | 2·75 | 9·69 | 6·33 | 4·35 | 0·33 | 0·03 | 0·24 | 25·66 |
| 1884 | 0 16 | 0·08 | 0·14 | ... | ... | 3·27 | 4 61 | 9·89 | 10·01 | 4·54 | ... | 0·25 | 32·95 |
| 1885 | 0 55 | ... | 0·15 | 0·49 | 2·34 | 4·55 | 13·50 | 13·38 | 0·16 | 0 03 | ... | 0·72 | 35·87 |
| 1886 | 0·43 | ... | 0·28 | ... | 0·50 | 5·26 | 15·60 | 9·46 | 1·61 | 0·02 | ... | ... | 33·16 |
| Mean | 0·53 | 0·28 | 0·23 | 0·16 | 0·72 | 2·86 | 9·80 | 6·67 | 4·32 | 0·42 | 0·02 | 0·24 | 26·25 |

No. 76. ETÁWAH.

Latitude N. 26° 46′. Longitude E. 79° 3′. Elevation 498 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | P | P | P | P | ... | ... | 3·05 | 6·58 | 1·20 | ... | ... | ... | P |
| 1845 | ... | 0·25 | ... | ... | ... | 2·21 | 10·46 | 4·55 | 0·95 | ... | ... | 0·22 | 18·64 |
| 1846 | 0·41 | ... | 0·23 | ... | 0·04 | 9·12 | 8·47 | 2·70 | 1·84 | ... | ... | ... | 22·81 |
| 1847 | 0·06 | 0·55 | ... | ... | 1·44 | 0·70 | 8·29 | 14·20 | 2·20 | ... | 2·26 | ... | 29·70 |
| 1848 | 0·47 | 0·08 | 0·01 | ... | 0·44 | 0·41 | 4·15 | 4·70 | 2·72 | 0·30 | ... | 0·60 | 13·88 |
| 1849 | 0·49 | ... | ... | ... | 0·31 | 1·10 | 1·02 | 6·37 | 10·37 | 3·36 | ... | 0·08 | 23·10 |
| 1850 | 2·34 | 1·01 | 0·99 | 0·19 | ... | 1·15 | 4·30 | 14·63 | 3·02 | ... | ... | ... | 27·63 |
| 1851 | 2·02 | 0·32 | ... | ... | 0·55 | 0·62 | 9·76 | 10·40 | 6·29 | 0·12 | ... | ... | 30·08 |
| 1852 | 0·06 | ... | 1·87 | 0·08 | 1·08 | 4·12 | 5·56 | 4·04 | 4·12 | ... | ... | 0·36 | 21·29 |
| 1853 | 0·34 | 0·16 | ... | 0·87 | ... | 3·21 | 10·15 | 2·38 | 0·11 | 3·18 | ... | ... | 20·40 |
| 1854 | 0·55 | 0·08 | ... | ... | 0·07 | 6·80 | 7·20 | 11·10 | 5·47 | 2·68 | 0·59 | 0·16 | 34·70 |
| 1855 | 0·29 | 0·09 | 1·50 | 2·00 | ... | 3·60 | 11·94 | 0·67 | 9·40 | 0·22 | P | P | 29·71 |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | P | P | P | P | P | 1·50 | 11·20 | 4·40 | 1·60 | ... | ... | ... | P |
| 1861 | ... | ... | ... | ... | ... | 2·50 | 9·70 | 3·50 | 3·10 | ... | ... | ... | 18·80 |
| 1862 | 0·10 | ... | 0·70 | ... | 0·90 | 11·00 | 15·00 | 9·90 | 8·50 | 0·90 | ... | ... | 47·00 |
| 1863 | 0·30 | ... | ... | ... | ... | 2·40 | 15·00 | 8·30 | 3·40 | 0·60 | ..f | ... | 30·00 |
| 1864 | ... | ... | ... | 0·20 | ... | 0·50 | 7·80 | 10·10 | 2·80 | ... | ... | ... | 21·40 |
| 1865 | 0·10 | ... | 1·20 | 0·60 | 0·60 | 0·50 | 3·90 | 6·60 | 13·30 | ... | ... | ... | 26·80 |
| 1866 | 0·50 | ... | ... | 0·20 | ... | 1·20 | 9·80 | 13·50 | 1·50 | ... | ... | ... | 26·70 |
| 1867 | 1·00 | 0·30 | 0·80 | 0·30 | 0·50 | 2·10 | 2·20 | 14·30 | 4·70 | 10·00 | ... | 0·60 | 36·80 |
| 1868 | 0·70 | ... | ... | ... | 1·30 | 0·80 | 6·70 | 0·60 | 6·30 | ... | ... | 0·40 | 16·80 |
| 1869 | 0·70 | ... | 1·50 | ... | 0·20 | 0·40 | 13·40 | 6·80 | 7·20 | 7·30 | ... | 2·00 | 39·50 |
| 1870 | 0·40 | ... | 2·00 | 0·50 | ... | 5·10 | 7·70 | 19·10 | 13·70 | 0·10 | ... | ... | 48·60 |
| 1871 | ... | 0·90 | ... | ... | 2·60 | 8·00 | 6·80 | 18·60 | 5·10 | ... | ... | 0·80 | 42·80 |
| 1872 | 1·40 | ... | 0·20 | ... | 0·80 | 3·90 | 9·90 | 9·40 | 2·30 | ... | ... | ... | 27·90 |
| 1873 | ... | ... | 1·40 | ... | 1·30 | 0·70 | 21·40 | 6·00 | 11·50 | ... | ... | ... | 42·30 |
| 1874 | ... | 0·10 | ... | ... | 0·30 | 5·40 | 9·50 | 19·40 | 3·10 | ... | ... | ... | 37·80 |
| 1875 | 0·30 | 2·10 | ... | ... | 0·20 | 0·50 | 14·20 | 4·80 | 8·30 | 0·40 | ... | 0·10 | 30·90 |
| 1876 | ... | ... | 0·10 | ... | ... | 0·20 | 10·30 | 5·10 | 4·20 | 0·50 | ... | ... | 20·40 |
| 1877 | 1·00 | 0·60 | 0·50 | ... | 0·60 | ... | 0·50 | 0·40 | 0·20 | 5·90 | ... | 3·00 | 12·70 |
| 1878 | 0·80 | ... | ... | 0·20 | 0·70 | 1·30 | 4·40 | 7·40 | 9·10 | ... | ... | ... | 23·90 |
| 1879 | 0·30 | ... | ... | ... | ... | 1·00 | 9·80 | 8·60 | 5·60 | 0·50 | ... | 0·10 | 25·90 |
| 1880 | ... | ... | ... | ... | ... | 3·40 | 5·70 | 1·50 | 0·60 | 0·30 | 0·20 | 0·10 | 11·80 |
| 1881 | ... | ... | 0·90 | ... | ... | 1·80 | 11·40 | 16·30 | ... | ... | ... | ... | 30·40 |
| 1882 | ... | 0·60 | ... | 0·10 | 0·40 | 4·80 | 10·82 | 9·19 | 0·38 | ... | ... | ... | 26·29 |
| 1883 | 1·99 | ... | 0·68 | ... | 0·38 | 0·82 | 10·04 | 1·70 | 5·89 | ... | ... | ... | 21·50 |
| Mean | 0·49 | 0·21 | 0·43 | 0·15 | 0·42 | 2·58 | 8·65 | 7·99 | 4·72 | 1·01 | 0·09 | 0·24 | 26·98 |
| 1884 | ... | ... | ... | ... | 0·40 | 0·68 | 5·43 | 9·49 | 9·64 | 4·19 | ... | 0·20 | 30·03 |
| 1885 | 0·30 | ... | ... | 0·08 | 0·62 | 6·10 | 10·22 | 21·20 | 0·63 | ... | ... | 1·46 | 40·61 |
| 1886 | 0·43 | ... | 0·21 | ... | 2·18 | 3·67 | 9·32 | 5·63 | 3·67 | 0·90 | ... | 0·24 | 26·25 |
| Mean | 0·47 | 0·19 | 0·40 | 0·14 | 0·47 | 2·66 | 8·63 | 8·31 | 4·72 | 1·06 | 0·08 | 0·27 | 27·40 |

No. 77. KHERI.

Latitude N. 27° 54′. Longitude E. 80° 50′. Elevation 470 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1867 | ? | ? | ? | ? | ? | ? | ? | 8·50 | 10·70 | 5·50 | ... | 0·40 | ? |
| 1868 | 1·40 | 1·40 | ... | 0·10 | 0·20 | 9·30 | 4·30 | 4·90 | 10·20 | ... | ... | 0·08 | 31·88 |
| 1869 | 0·70 | ... | 0·30 | ... | 0·10 | 2·30 | 3·00 | 7·30 | 4·50 | 5·60 | ... | 0·60 | 24·40 |
| 1870 | ... | 0·30 | 1·30 | 0·70 | 0·30 | 11·70 | 13·00 | 27·70 | 8·30 | 0·40 | ... | ... | 63·70 |
| 1871 | 0·60 | 0·50 | ... | ... | 6·20 | 10·10 | 29·90 | 11·50 | 11·30 | ... | ... | 1·90 | 72·00 |
| 1872 | 2·90 | 2·10 | 0·60 | ... | 0·40 | 8·70 | 7·40 | 15·80 | 10·60 | ... | ... | ... | 48·50 |
| 1873 | 1·00 | 0·30 | 1·00 | ... | 0·10 | 0·40 | 13·20 | 8·70 | 3·10 | ... | ... | ... | 27·80 |
| 1874 | 0·30 | 1·70 | 0·50 | ... | ... | 11·60 | 15·00 | 9·00 | 20·00 | ... | ... | ... | 58·10 |
| 1875 | 0·10 | 2·50 | ... | ... | 1·70 | 4·80 | 6·00 | 8·50 | 5·30 | ... | ... | ... | 28·90 |
| 1876 | 0·30 | ... | 0·40 | 0·20 | ... | 0·70 | 9·90 | 8·70 | 21·90 | 3·00 | ... | ... | 45·10 |
| 1877 | 6·20 | 1·40 | 1·00 | 0·20 | 0·70 | 7·70 | 4·50 | 0·80 | ... | 4·40 | ... | 3·10 | 30·00 |
| 1878 | 0·50 | 1·20 | 0·30 | 2·80 | 2·20 | 6·00 | 21·90 | 16·80 | 14·20 | ... | ... | ... | 65·90 |
| 1879 | ... | 0·60 | ... | ... | 0·70 | 8·90 | 17·40 | 11·70 | 1·80 | 8·20 | ... | 0·20 | 49·50 |
| 1880 | ... | 1·20 | ... | ... | 0·60 | 2·80 | 7·10 | 4·20 | 8·30 | ... | ... | ... | 24·20 |
| 1881 | ... | 0·10 | 4·30 | 0·30 | 2·00 | 5·50 | 1·80 | 7·50 | 2·10 | ... | ... | ... | 23·60 |
| 1882 | 0·20 | 0·50 | ... | ... | 1·20 | 7·80 | 4·10 | 16·65 | 3·14 | 0·93 | ... | ... | 34·52 |
| 1883 | 4·68 | ... | 0·39 | 0·14 | 2·68 | 3·96 | 12·78 | 3·01 | 3·59 | ... | ... | 0·05 | 31·28 |
| Mean | **1·18** | **0·86** | **0·63** | **0·28** | **1·19** | **6·39** | **10·71** | **10·07** | **8·18** | **1·65** | ... | **0·37** | **41·51** |
| 1884 | ... | ... | 0·03 | ... | 0·37 | 7·54 | 17·35 | 8·46 | 7·57 | 6·33 | ... | ... | 47·65 |
| 1885 | 1·85 | 0·10 | ... | ... | 0·85 | 5·97 | 18·86 | 25·14 | 5·62 | ... | ... | 3·51 | 61·90 |
| 1886 | 0·28 | ... | 1·75 | ... | 1·52 | 6·66 | 9·67 | 10·13 | 5·24 | 0·48 | ... | 0·13 | 35·86 |
| Mean | **1·11** | **0·73** | **0·62** | **0·23** | **1·15** | **6·44** | **11·43** | **10·75** | **7·87** | **1·74** | ... | **0·50** | **42·57** |

No. 78. SITAPUR.

Latitude N. 27° 34′. Longitude E. 80° 43′. Elevation 442 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1867 | ? | ? | ? | ? | ? | 16·70 | 19·30 | 20·20 | 8·90 | 5·20 | ... | 0·20 | ? |
| 1868 | 1·20 | 1·40 | ... | 0·90 | 1·30 | 2·90 | 13·70 | 4·22 | 4·80 | ... | ... | ... | 30·42 |
| 1869 | ... | ... | 0·30 | ... | ... | 0·20 | 3·30 | 8·70 | 2·90 | 4·90 | ... | ... | 20·30 |
| 1870 | ... | 0·50 | ... | 2·50 | ... | 15·30 | 13·60 | 18·20 | 6·40 | ... | ... | ... | 56·50 |
| 1871 | 0·80 | 0·90 | ... | ... | 5·20 | 9·90 | 19·30 | 7·50 | 6·30 | ... | ... | 1·50 | 51·40 |
| 1872 | 3·00 | 0·50 | ... | ... | 0·60 | 6·10 | 6·90 | 12·90 | 4·70 | ... | ... | ... | 34·70 |
| 1873 | 0·10 | ... | 1·70 | ... | 0·40 | 2·90 | 14·10 | 4·40 | 5·30 | ... | ... | ... | 28·90 |
| 1874 | 0·40 | 3·30 | 0·30 | ... | ... | 6·80 | 15·10 | 11·80 | 13·70 | ... | ... | ... | 49·40 |
| 1875 | 0·10 | 1·00 | ... | ... | 0·90 | 1·70 | 12·70 | 10·60 | 5·90 | 0·20 | ... | ... | 33·10 |
| 1876 | ... | ... | 0·40 | 0·20 | ... | ... | 7·10 | 6·30 | 19·60 | 1·60 | ... | ... | 35·20 |
| 1877 | 2·40 | 0·20 | 2·10 | 0·80 | 0·70 | 3·20 | 2·20 | 0·40 | ... | 4·50 | ... | 2·70 | 19·20 |

SITAPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1878 | 1·60 | 0·90 | ... | 0·50 | 3·02 | 3·90 | 8·40 | 10·70 | 11·75 | ... | ... | ... | 40·77 |
| 1879 | ... | ... | ... | ... | 0·80 | 8·50 | 24·50 | 15·10 | 4·60 | 10·60 | ... | 0·20 | 64·30 |
| 1880 | ... | 0·40 | ... | ... | 1·30 | 0·20 | 10·20 | 2·60 | 4·15 | 0·20 | 0·53 | ... | 19·58 |
| 1881 | ... | 0·10 | 2·20 | ... | 1·10 | 6·30 | 6·00 | 11·10 | 0·90 | 0·10 | ... | ... | 27·80 |
| 1882 | ... | ... | ... | ... | 1·20 | 5·90 | 3·50 | 9·00 | 0·90 | 0·10 | ... | ... | 21·20 |
| 1883 | 4·18 | ... | 0·88 | ... | 2·52 | 2·32 | 12·76 | 1·04 | 3·23 | ... | 0·04 | 0·07 | 27·04 |
| Mean | 0·86 | 0·45 | 0·49 | 0·31 | 1·19 | 5·46 | 11·33 | 9·14 | 6·12 | 1·61 | 0·03 | 0·27 | 37·26 |
| 1884 | ... | 0·03 | 0·06 | ... | 0·20 | 3·02 | 4·65 | 13·38 | 7·81 | 4·72 | ... | ... | 33·87 |
| 1885 | 1·86 | ... | ... | ... | 1·36 | 6·20 | 20·04 | 20·24 | 1·07 | 0·17 | ... | 4·00 | 55·54 |
| 1886 | 0·14 | ... | 2·59 | ... | 1·02 | 6·30 | 14·82 | 13·30 | 5·18 | 0·46 | ... | 0·16 | 43·97 |
| Mean | 0·83 | 0·38 | 0·55 | 0·26 | 1·14 | 5·42 | 11·64 | 10·11 | 5·90 | 1·64 | 0·03 | 0·44 | 38·34 |

No. 79. HARDOI.

Latitude N. 27° 24′. Longitude E. 80° 10′. Elevation 460 feet.

Administration: N.-W. Provinces and Oudh. Rainfall Province No. III.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ? | ? | ? | ? | ? | 12·70 | 16·80 | 8·80 | 15·00 | 8·70 | ... | ... | ? |
| 1868 | 0·40 | 0·60 | ... | 0·20 | 2·30 | 2·30 | 5·70 | 1·40 | 1·80 | ... | ... | ... | 14·70 |
| 1869 | 0·20 | ... | 0·40 | ... | 0·50 | 0·10 | 5·50 | 1·70 | 8·70 | 5·80 | ... | 2·40 | 25·30 |
| 1870 | ... | ... | 1·30 | 0·90 | ... | 9·40 | 5·50 | 20·60 | 8·10 | 0·20 | ... | ... | 46·00 |
| 1871 | 1·30 | 0·50 | ... | 0·20 | 1·00 | 3·60 | 18·20 | 8·30 | 9·20 | ... | ... | 2·70 | 45·00 |
| 1872 | 2·20 | 0·30 | 1·10 | ... | ... | 6·70 | 25·00 | 13·40 | 1·90 | ... | ... | ... | 50·60 |
| 1873 | ... | ... | 0·60 | ... | 0·50 | 0·30 | 7·70 | 4·50 | 5·80 | ... | ... | ... | 19·40 |
| 1874 | 0·30 | ... | ... | ... | ... | 5·00 | 16·00 | 15·10 | 7·70 | ... | ... | ... | 44·70 |
| 1875 | 0·30 | 2·70 | ... | ... | 1·80 | 1·80 | 17·60 | 9·10 | 6·80 | ... | ... | ... | 40·10 |
| 1876 | ... | ... | 0·60 | 1·30 | 0·10 | 0·80 | 9·80 | 8·60 | 8·00 | 0·90 | ... | ... | 30·70 |
| 1877 | 1·60 | 0·50 | 2·10 | 0·80 | 0·70 | 4·40 | 2·80 | 0·50 | 0·70 | 10·10 | ... | 2·10 | 26·30 |
| 1878 | 1·60 | ... | 0·80 | 0·10 | 0·70 | 2·90 | 6·90 | 6·70 | 7·10 | ... | ... | ... | 26 80 |
| 1879 | ... | ... | ... | ... | ... | 1·10 | 13·80 | 18·40 | 4·20 | 3·50 | ... | 0·10 | 41·10 |
| 1880 | ... | 0·30 | ... | ... | 0·20 | 1·70 | 10·50 | 2·40 | 4·00 | ... | ... | 0·20 | 25·30 |
| 1881 | ... | 0·30 | 4·50 | ... | 0·60 | 5·40 | 9·10 | 13·40 | 0·80 | ... | ... | ... | 34·10 |
| 1882 | 0·10 | ... | ... | ... | 0·50 | 5·10 | 6·00 | 6·80 | 2·20 | 0·61 | ... | ... | 21·31 |
| 1883 | 2·93 | ... | 0·56 | ... | 0·20 | 1·20 | 16·32 | 4·07 | 5·00 | ... | ... | ... | 30·28 |
| Mean | 0·68 | 0·32 | 0·75 | 0·22 | 0·57 | 3·83 | 1·72 | 8·46 | 5·74 | 1·75 | ... | 0·44 | 34·48 |
| 1884 | ... | ... | ... | ... | ... | 0·70 | 3·90 | 16·47 | 13·13 | ... | ... | ... | 34·20 |
| 1885 | 0·90 | ... | ... | ... | ... | 6·44 | 21·09 | 13·67 | 2·10 | ... | ... | 1·33 | 45·53 |
| 1836 | 0·49 | ... | 1·82 | ... | 0·68 | 11·00 | 10·70 | 7·26 | 7·94 | 1·53 | ... | ... | 41·42 |
| Mean | 0·65 | 0·27 | 0·73 | 0·18 | 0·51 | 4·16 | 11·75 | 9·06 | 6·04 | 1·57 | ... | 0·44 | 35·36 |

No. 80. BAHRAICH.

Latitude N. 27° 35′. Longitude E. 81° 38′. Elevation 398 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1867 | ? | ? | ? | ? | ? | ? | ? | 5·70 | 3·80 | 2·20 | ... | ... | ? |
| 1868 | 0·60 | 1·70 | 0·10 | 0·30 | 3·10 | 6·90 | 19·60 | 13·70 | 6·40 | ... | ... | 0·10 | 52·50 |
| 1869 | 0·50 | 0·40 | 0·10 | 0·10 | ... | 3·30 | 6·20 | 10·70 | 5·80 | 6·40 | ... | 0·50 | 34·00 |
| 1870 | ... | 0·60 | 0·80 | 0·50 | 0·30 | 8·20 | 32·70 | 10·40 | 18·00 | 0·50 | ... | ... | 72·00 |
| 1871 | 1·10 | 1·40 | ... | 1·70 | 4·20 | 5·60 | 23·90 | 13·50 | 23·90 | ... | ... | 0·60 | 75·90 |
| 1872 | 1·70 | 0·50 | ... | 0·40 | 1·30 | 6·00 | 10·60 | 8·20 | 9·20 | ... | ... | ... | 37·90 |
| 1873 | ... | 0·50 | 1·50 | ... | 0·40 | 2·90 | 12·70 | 5·30 | 6·80 | ... | ... | ... | 30·10 |
| 1874 | 2·30 | 1·00 | 0·50 | ... | 0·60 | 7·80 | 16·50 | 9·80 | 7·20 | 1·60 | ... | ... | 47·30 |
| 1875 | 0·10 | 0·30 | ... | ... | 2·00 | 7·40 | 8·30 | 12·10 | 6·40 | ... | ... | ... | 36·60 |
| 1876 | ... | ... | 0·20 | 0·80 | 0·20 | 1·70 | 4·40 | 6·60 | 16·80 | 3·50 | ... | ... | 34·20 |
| 1877 | 3·60 | 0·90 | 1·00 | 0·70 | 0·80 | 1·40 | 8·70 | 3·00 | 4·00 | 5·50 | ... | 2·50 | 32·10 |
| 1878 | 1·90 | 1·80 | 0·10 | 1·00 | 1·40 | 6·60 | 7·90 | 6·80 | 5·40 | ... | ... | ... | 32·90 |
| 1879 | ... | 1·80 | ... | ... | 2·10 | 4·70 | 28·70 | 10·20 | 9·80 | 5·60 | ... | 1·80 | 64·70 |
| 1880 | ... | 2·60 | ... | ... | 5·50 | 4·60 | 18·90 | 9·20 | 3·90 | 0·10 | 0·70 | ... | 45·50 |
| 1881 | ... | 0·10 | 2·30 | ... | 2·00 | 9·70 | 8·50 | 4·60 | 4·00 | ... | ... | ... | 31·20 |
| 1882 | 0·10 | 1·90 | ... | ... | 4·30 | 13·10 | 8·50 | 15·08 | 0·30 | 2·30 | ... | ... | 45·58 |
| 1883 | 2·16 | ... | 0·08 | 0·22 | 0·80 | 6·40 | 16·00 | 0·90 | 3·20 | ... | ... | ... | 29·76 |
| Mean | **0·88** | **0·97** | **0·42** | **0·36** | **1·81** | **6·02** | **14·51** | **8·58** | **7·94** | **1·63** | **0·04** | **0·32** | **43·48** |
| 1884 | ... | ... | ... | ... | 0·60 | 5·10 | 9·00 | 12·40 | 8·04 | 6·50 | ... | ... | 41·64 |
| 1885 | 0·80 | ... | ... | 0·15 | 0·37 | 6·14 | 18·79 | 15·11 | 4·43 | ... | ... | 4·20 | 49·99 |
| 1886 | 0·50 | ... | 1·06 | ... | 1·20 | 5·52 | 19·02 | 14·90 | 4·05 | 1·80 | ... | 0·38 | 48·43 |
| Mean | **0·81** | **0·82** | **0·41** | **0·31** | **1·64** | **5·95** | **14·68** | **9·41** | **7·57** | **1·80** | **0·04** | **0·50** | **43·94** |

No. 81. GONDA.

Latitude N. 27° 8′. Longitude E. 82° 0′. Elevation 340 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1868 | 1·00 | 0·80 | ... | ... | 0·40 | 9·40 | 9·60 | 12·50 | 5·30 | ... | ... | ... | 39·00 |
| 1869 | 0·10 | ... | ... | ... | ... | 2·40 | 7·70 | 6·80 | 6·70 | 2·00 | ... | ... | 25·70 |
| 1870 | ... | 0·40 | 1·10 | ... | ... | 6·50 | 21·40 | 17·60 | 14·10 | 1·10 | ... | ... | 62·20 |
| 1871 | 0·60 | 0·90 | ... | ... | 2·10 | 4·80 | 29·90 | 11·20 | 32·00 | ... | ... | ... | 81·50 |
| 1872 | 1·50 | 0·70 | 0·50 | ... | 0·40 | 9·50 | 6·50 | 12·30 | 14·10 | ... | ... | ... | 45·50 |
| 1873 | ... | ... | 1·00 | ... | ... | 4·30 | 7·70 | 5·10 | 3·90 | ... | ... | ... | 22·00 |
| 1874 | 0·30 | 1·80 | ... | ... | 0·70 | 14·60 | 14·90 | 16·30 | 16·00 | ... | ... | ... | 64·60 |
| 1875 | 0·30 | 0·90 | ... | ... | 1·70 | 6·60 | 8·70 | 10·30 | 7·20 | ... | ... | ... | 35·70 |
| 1876 | ... | ... | 0·40 | ... | ... | 3·70 | 3·10 | 6·10 | 8·80 | 3·90 | ... | ... | 26·00 |

GONDA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | 2·20 | 1·00 | ... | 0·70 | 1·30 | 5·40 | 10·70 | 0·80 | 5·95 | 11·75 | ... | 2·15 | 41·95 |
| 1878 | 1·70 | 0·50 | ... | 0·70 | 1·60 | 3·50 | 9·20 | 11·90 | 7·70 | ... | ... | ... | 36·80 |
| 1879 | ... | 0·30 | ... | ... | 1·20 | 11·40 | 22·10 | 16·90 | 8·60 | 3·40 | ... | 0·40 | 64·30 |
| 1880 | ... | 0·40 | ... | ... | 4·10 | 2·80 | 12·20 | 3·00 | 2·10 | 0·30 | 0·80 | ... | 25·70 |
| 1881 | ... | 0·30 | 0·40 | ... | 3·90 | 7·50 | 8·90 | 7·00 | 2·80 | 0·20 | ... | ... | 31·00 |
| 1882 | ... | ... | ... | ... | 2·00 | 4·60 | 6·70 | 18·60 | 0·40 | 0·20 | ... | ... | 32·50 |
| 1883 | 4·10 | ... | 0·40 | ... | 0·62 | 6·44 | 13·84 | 5·41 | 7·13 | ... | ... | ... | 37·94 |
| Mean | 0·74 | 0·50 | 0·24 | 0·09 | 1·25 | 6·47 | 12·07 | 10·11 | 8·92 | 1·43 | 0·05 | 0·16 | 42·03 |
| 1884 | ... | ... | ... | 0·20 | 0·34 | 5·16 | 3·91 | 13·83 | 11·61 | 1·13 | ... | ... | 36·18 |
| 1885 | 1·45 | ... | 0·27 | ... | 0·57 | 5·52 | 22·13 | 18·39 | 5·18 | 0·16 | ... | 4·04 | 57·71 |
| 1886 | 0·73 | ... | 1·70 | ... | 2·62 | 7·27 | 7·93 | 14·80 | 3·10 | 1·88 | ... | ... | 40·03 |
| Mean | 0·73 | 0·42 | 0·30 | 0·08 | 1·24 | 6·39 | 11·95 | 10·99 | 8·56 | 1·37 | 0·04 | 0·35 | 42·42 |

No. 82. FYZABAD.

Latitude N. 26°47′. Longitude E. 82°12′. Elevation 329 feet.

Administration: N.-W. Provinces and Oudh. Rainfall Province No. III.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ? | ? | ? | ? | ? | ? | ? | 7·60 | 8·90 | 1·50 | ... | ... | ? |
| 1868 | 2·00 | 0·60 | 0·20 | 0·70 | 1·80 | 6·10 | 6·85 | 6·60 | 13·50 | ... | ... | ... | 38·35 |
| 1869 | 0·10 | ... | 0·60 | ... | ... | 1·50 | 15·20 | 10·00 | 10·90 | 7·40 | ... | 0·30 | 46·00 |
| 1870 | ... | 0·10 | 0·80 | ... | ... | 9·20 | 26·90 | 8·80 | 13·90 | 3·60 | ... | ... | 63·30 |
| 1871 | 0·60 | 0·50 | ... | ... | 3·50 | 6·50 | 29·80 | 14·60 | 31·20 | ... | ... | 0·50 | 87·30 |
| 1872 | 1·90 | 0·90 | 0·40 | ... | 0·20 | 2·30 | 21·30 | 7·30 | 8·40 | ... | ... | ... | 42·70 |
| 1873 | 0·30 | ... | 2·10 | ... | 0·20 | 1·40 | 11·60 | 15·20 | 3·70 | ... | ... | 0·10 | 34·69 |
| 1874 | ... | 0·90 | ... | ... | 0·10 | 17·80 | 15·40 | 14·70 | 4·70 | 0·30 | ... | ... | 53·90 |
| 1875 | 0·40 | 0·40 | ... | ... | 2·00 | 4·90 | 8·40 | 15·60 | 5·00 | ... | ... | ... | 36·70 |
| 1876 | 0·20 | ... | 0·10 | 0·10 | ... | 1·70 | 3·60 | 2·10 | 7·50 | 3·60 | ... | ... | 18·90 |
| 1877 | 2·80 | 1·30 | ... | 1·10 | 0·40 | 1·10 | 5·60 | 2·40 | 4·20 | 4·20 | ... | 0·70 | 23·80 |
| 1878 | 1·20 | 1·20 | 0·20 | 2·10 | 0·70 | 3·70 | 11·80 | 15·10 | 10·40 | ... | ... | ... | 46·40 |
| 1879 | ... | ... | ... | ... | 0·40 | 9·80 | 24·60 | 11·80 | 7·60 | 2·00 | ... | ... | 56·20 |
| 1880 | ... | 0·60 | ... | ... | 3·60 | ... | 13·40 | 1·60 | 2·20 | ... | 0·50 | ... | 21·90 |
| 1881 | ... | ... | 2·00 | ... | 2·10 | 10·50 | 4·30 | 10·80 | 1·60 | 1·50 | ... | ... | 32·80 |
| 1882 | ... | ... | ... | 0·10 | 0·90 | 3·30 | 5·20 | 17·99 | 0·65 | 2·52 | ... | ... | 30·66 |
| 1883 | 4·02 | ... | 0·20 | ... | 1·10 | 4·50 | 9·42 | 5·50 | 3·10 | ... | ... | ... | 27·84 |
| Mean | 0·85 | 0·41 | 0·41 | 0·26 | 1·06 | 5·27 | 13·34 | 9·86 | 8·09 | 1·57 | 0·03 | 0·09 | 41·24 |
| 1884 | ... | ... | ... | ... | 1·70 | 6·20 | 3·30 | 16·36 | 14·42 | 3·32 | ... | ... | 45·30 |
| 1885 | 1·70 | ... | ... | ... | 0·61 | 7·40 | 10·16 | 12·36 | 4·16 | ... | ... | 3·30 | 39·69 |
| 1886 | ... | ... | 1·90 | ... | 2·72 | 7·77 | 10·99 | 10·70 | 1·73 | 4·53 | ... | 0·22 | 40·56 |
| Mean | 0·80 | 0·34 | 0·45 | 0·22 | 1·16 | 5·56 | 12·52 | 10·36 | 7·89 | 1·72 | 0·03 | 0·26 | 41·31 |

No. 83. NAWABGANJ—(Barabanki).

Latitude N. 26° 56′. Longitude E. 81° 15′. Elevation 378 feet.

Administration : N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1867 | ? | ? | ? | ? | ? | 13·50 | 11·10 | 8·40 | 8·70 | 1·70 | ... | ... | ? |
| 1868 | 2·10 | ... | 0·10 | ... | 0·80 | 3·60 | 5·60 | 3·90 | 11·60 | ... | ... | ... | 27·70 |
| 1869 | 0·20 | ... | 0·30 | ... | ... | 0·60 | 5·40 | 4·40 | 9·00 | 4·40 | ... | 1·50 | 25·80 |
| 1870 | ... | ... | 2·10 | 0·50 | 0·50 | 6·10 | 16·70 | 13·00 | 15·00 | 2·20 | ... | ... | 56·10 |
| 1871 | 1·00 | 1·50 | ... | 0·10 | 2·70 | 11·40 | 21·50 | 5·90 | 26·60 | ... | ... | 3·10 | 73·80 |
| 1872 | 0·80 | 0·90 | 0·50 | ... | 0·30 | 5·30 | 7·90 | 13·80 | 6·70 | ... | ... | ... | 36·20 |
| 1873 | 0·10 | 0·10 | 1·30 | ... | 0·40 | 0·40 | 16·10 | 6·50 | 8·90 | ... | ... | ... | 33·80 |
| 1874 | 0·20 | 0·10 | ... | ... | ... | 10·80 | 16·00 | 8·10 | 7·20 | ... | ... | ... | 42·40 |
| 1875 | 0·50 | 0·60 | ... | ... | 0·10 | 5·20 | 4·00 | 13·60 | 12·30 | ... | ... | ... | 36·30 |
| 1876 | 0·30 | ... | 0·80 | 1·80 | ... | 0·20 | 2·80 | 6·70 | 11·00 | 2·10 | ... | ... | 25·70 |
| 1877 | 3·50 | 1·20 | ... | 1·60 | 0·30 | 1·40 | 1·90 | 3·20 | 0·70 | 3·30 | ... | 2·00 | 19·10 |
| 1878 | 2·30 | ... | 0·10 | 0·20 | 0·90 | 1·50 | 5·40 | 13·80 | 9·20 | ... | ... | ... | 33·40 |
| 1879 | ... | ... | ... | ... | 0·50 | 5·80 | 27·90 | 12·60 | 9·70 | 2·10 | ... | 0·50 | 59·10 |
| 1880 | ... | 0·60 | ... | ... | 3·10 | 0·80 | 7·90 | 0·90 | 3·50 | ... | ... | ... | 16·80 |
| 1881 | ... | ... | 0·50 | ... | 0·70 | 6·90 | 11·80 | 8·40 | 3·20 | ... | ... | ... | 31·50 |
| 1882 | ... | ... | ... | ... | 1·60 | 3·80 | 5·70 | 6·25 | 0·90 | ... | ... | ... | 18·25 |
| 1883 | 5·43 | ... | 0·79 | ... | 1·08 | 7·74 | 11·59 | 1·28 | 6·66 | ... | ... | ... | 34·57 |
| Mean | **1·03** | **0·31** | **0·41** | **0·26** | **0·81** | **5·00** | **10·55** | **7·69** | **8·87** | **0·93** | ... | **0·42** | **36·28** |
| 1884 | ... | ... | 0·04 | ... | 0·16 | 1·86 | 7·37 | 14·99 | 15·00 | 3·83 | ... | ... | 43·25 |
| 1885 | 0·67 | ... | 0·04 | 0·20 | 0·58 | 7·54 | 13·57 | 17·39 | 1·43 | 0·27 | ... | 4·68 | 46·37 |
| 1886 | 0·45 | ... | 1·10 | ... | 3·99 | 10·18 | 7·72 | 13·15 | 11·45 | ... | ... | 0·40 | 48·44 |
| Mean | **0·92** | **0·26** | **0·40** | **0·23** | **0·93** | **5·23** | **10·40** | **8·81** | **8·94** | **1·00** | ... | **0·61** | **37·73** |

No. 84. LUCKNOW.

Latitude N. 26° 50′. Longitude E. 81° 0.′ Elevation 369 feet.

Administration : N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1867 | ? | ? | ? | ? | ? | 7·50 | 15·70 | 7·40 | 9·40 | 9·40 | ... | 0·10 | ? |
| 1868 | 0·80 | 0·20 | ... | ... | 1·60 | 3·00 | 6·80 | 2·90 | 7·80 | ... | ... | ... | 23·10 |
| 1869 | 0·10 | ... | 0·20 | ... | ... | ... | 12·40 | 3·90 | 12·70 | 4·10 | ... | 1·30 | 34·70 |
| 1870 | ... | 0·20 | 1·40 | 0·60 | 0·20 | 9·10 | 15·00 | 21·30 | 10·90 | 2·50 | ... | ... | 61·20 |
| 1871 | 0·60 | 0·80 | ... | ... | 4·70 | 15·70 | 18·20 | 4·30 | 18·30 | ... | ... | 2·10 | 64·90 |
| 1872 | 1·40 | 0·50 | 0·40 | ... | 0·30 | 1·20 | 9·20 | 20·00 | 2·70 | ... | ... | ... | 35·70 |
| 1873 | 0·30 | ... | 0·10 | ... | 0·10 | 0·50 | 13·40 | 9·90 | 9·20 | ... | ... | ... | 33·50 |
| 1874 | 0·40 | 0·40 | 0·20 | ... | ... | 12·40 | 12·10 | 18·10 | 8·10 | 0·40 | ... | ... | 52·10 |
| 1875 | 0·20 | 0·40 | ... | ... | ... | 0·70 | 8·10 | 23·80 | 12·90 | ... | ... | 0·30 | 46·40 |
| 1876 | 0·10 | ... | 0·70 | ... | ... | 3·90 | 8·10 | 6·00 | 3·00 | 0·90 | ... | ... | 22·70 |

LUCKNOW—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | 3·00 | 1·20 | 0·10 | 0·90 | 0·10 | 0·20 | 2·90 | 1·00 | 0·90 | 2·40 | ... | 1·70 | 14·40 |
| 1878 | 2·60 | 0·10 | 0·20 | 0·50 | 1·50 | 2·50 | 7·10 | 13·50 | 6·60 | ... | ... | ... | 34·60 |
| 1879 | 0·17 | 0·02 | ... | ... | 0·05 | 3·70 | 18·12 | 8·47 | 5·67 | 1·96 | ... | 0·16 | 38·32 |
| 1880 | 0·23 | 0·72 | ... | ... | 1·74 | 1·36 | 4·73 | 4·63 | 3·50 | 0·07 | 0·24 | 0·16 | 17·38 |
| 1881 | 0·03 | 0·06 | 0·61 | ... | 0·62 | 3·13 | 10·59 | 15·72 | 1·85 | 0·10 | ... | 0·01 | 32·72 |
| 1882 | 0·03 | 0·11 | ... | 0·16 | 1·60 | 4·67 | 5·19 | 9·42 | 1·12 | 0·07 | ... | ... | 22·37 |
| 1883 | 4·72 | ... | 0·82 | ... | 0·29 | 3·60 | 19·14 | 3·31 | 4·18 | ... | ... | ... | 36·06 |
| Mean | 0·92 | 0·29 | 0·30 | 0·14 | 0·80 | 4·30 | 10·99 | 10·21 | 7·00 | 1·29 | 0·01 | 0·34 | 36·59 |
| 1884 | ... | ... | 0·11 | ... | 1·09 | 4·17 | 7·45 | 12·42 | 12·13 | 2·87 | ... | 0·02 | 40·26 |
| 1885 | 0·66 | ... | ... | 0·30 | 1·10 | 8·36 | 15·24 | 14·61 | 1·06 | 0·50 | ... | 3·92 | 45·75 |
| 1886 | 0·70 | ... | 0·48 | ... | 2·19 | 13·69 | 6·79 | 6·74 | 10·23 | 1·97 | ... | 0·62 | 43·41 |
| Mean | 0·84 | 0·25 | 0·28 | 0·13 | 0·90 | 4·97 | 10·81 | 10·37 | 7·12 | 1·36 | 0·01 | 0·52 | 37·56 |

No. 85. UNAO.

Latitude N. 26° 32′. Longitude E. 80° 32′. Elevation 412 feet.

Administration: N.-W. Provinces and Oudh. Rainfall Province No. III.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ? | ? | ? | ? | ? | 19·10 | 19·40 | 14·30 | 9·90 | 4·20 | ... | 0·20 | ? |
| 1868 | 0·60 | 0·30 | 0·10 | ... | 0·30 | 1·10 | 3·75 | 1·25 | 6·60 | 0·10 | ... | ... | 14·10 |
| 1869 | ... | ... | 0·60 | ... | ... | ... | 7·60 | 4·50 | 13·70 | 6·70 | ... | 0·70 | 33·80 |
| 1870 | ... | 0·20 | 1·00 | ... | ... | 9·00 | 6·70 | 26·90 | 9·30 | 4·90 | ... | ... | 58·00 |
| 1871 | 0·60 | 1·00 | ... | 0·50 | 2·50 | 10·40 | 10·70 | 7·50 | 6·30 | ... | ... | 2·00 | 41·50 |
| 1872 | 1·10 | 0·40 | 0·40 | 0·50 | 0·50 | 7·50 | 13·50 | 20·90 | 0·90 | ... | ... | ... | 45·70 |
| 1873 | 0·80 | ... | 1·00 | ... | 1·20 | 0·80 | 11·40 | 7·40 | 6·50 | ... | ... | ... | 29·10 |
| 1874 | 0·10 | 0·20 | ... | ... | ... | 6·00 | 15·90 | 11·00 | 6·10 | ... | ... | ... | 39·30 |
| 1875 | 0·10 | 0·60 | ... | ... | ... | 0·60 | 6·50 | 9·80 | 6·90 | ... | ... | ... | 24·50 |
| 1876 | ... | ... | 0·40 | 0·10 | 0·20 | 0·60 | 13·80 | 4·80 | 1·80 | ... | ... | ... | 21·70 |
| 1877 | 2·20 | 1·80 | 0·10 | 0·60 | 0·60 | 1·60 | 2·40 | 2·30 | 0·70 | 4·70 | 0·10 | 1·50 | 18·60 |
| 1878 | 3·80 | 0·60 | 0·20 | 0·20 | 1·90 | 1·55 | 12·15 | 6·15 | 3·20 | ... | ... | ... | 29·75 |
| 1879 | ... | ... | ... | ... | ... | 8·10 | 8·10 | 8·30 | 3·90 | 3·10 | ... | ... | 31·50 |
| 1880 | ... | 0·20 | ... | ... | 0·50 | 0·70 | 6·70 | 1·80 | 1·80 | ... | ... | 0·40 | 12·10 |
| 1881 | ... | 0·30 | 0·40 | ... | 0·70 | 3·35 | 15·20 | 13·50 | 2·70 | ... | ... | ... | 36·15 |
| 1882 | ... | 0·10 | ... | 0·10 | 0·40 | 10·00 | 4·80 | 6·35 | 1·82 | 1·46 | ... | ... | 25·03 |
| 1883 | 3·36 | 0·11 | 0·31 | ... | 0·17 | 1·07 | 14·39 | 2·36 | 5·58 | ... | ... | ... | 27·35 |
| Mean | 0·79 | 0·36 | 0·28 | 0·13 | 0·56 | 4·79 | 10·18 | 8·77 | 5·16 | 1·48 | 0·01 | 0·28 | 32·79 |
| 1884 | ... | ... | 0·60 | ... | 0·60 | 3·16 | 6·66 | 21·80 | 13·84 | 3·49 | ... | ... | 50·15 |
| 1885 | 0·22 | ... | ... | 0·70 | 0·45 | 6·08 | 12·31 | 16·42 | 0·61 | 0·40 | ... | 3·02 | 40·21 |
| 1886 | 0·15 | ... | 0·20 | ... | 1·20 | 8·55 | 11·46 | 11·58 | 5·01 | 2·85 | ... | 0·40 | 41·40 |
| Mean | 0·69 | 0·31 | 0·28 | 0·14 | 0·59 | 4·96 | 10·17 | 9·95 | 5·36 | 1·60 | 0·01 | 0·41 | 34·47 |

No. 86. SULTANPUR.

Latitude N. 26° 16′. Longitude E. 82° 7′. Elevation 350 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1867 | ? | ? | ? | ? | ? | 6·90 | 13·50 | 8·30 | 8·90 | 1·50 | ... | ... | ? |
| 1868 | 0·70 | ... | ... | ... | 0·10 | 3·50 | 11·50 | 5·70 | 4·70 | ... | ... | ... | 26·20 |
| 1869 | 0·10 | ... | 0·50 | ... | ... | 4·70 | 15·20 | 4·70 | 10·80 | 5·20 | ... | 0·30 | 41·50 |
| 1870 | ... | ... | 1·00 | 0·90 | 0·40 | 7·10 | 21·10 | 9·00 | 9·10 | 6·20 | ... | ... | 54·80 |
| 1871 | 0·60 | 0·20 | ... | ... | 2·90 | 8·30 | 19·30 | 12·40 | 24·60 | ... | ... | 0·80 | 69·10 |
| 1872 | 1·50 | ... | 0·40 | ... | 0·10 | 7·30 | 12·70 | 19·20 | 13·60 | ... | ... | 0·20 | 55·00 |
| 1873 | 0·20 | ... | 0·40 | ... | 2·50 | 1·70 | 12·40 | 18·10 | 3·90 | ... | ... | 0·20 | 39·40 |
| 1874 | ... | 0·20 | ... | ... | ... | 26·60 | 14·20 | 12·00 | 7·70 | 0·20 | ... | ... | 60·90 |
| 1875 | 0·40 | 0·50 | ... | ... | 1·20 | 2·40 | 10·90 | 18·00 | 14·20 | ... | ... | ... | 47·60 |
| 1876 | 0·20 | ... | ... | 0·60 | ... | 1·90 | 10·40 | 5·20 | 11·50 | 4·60 | ... | ... | 34·40 |
| 1877 | 3·00 | 2·20 | 0·40 | 1·70 | ... | 0·40 | 5·40 | 4·90 | 0·70 | 3·70 | ... | 0·10 | 22·50 |
| 1878 | 1·80 | 0·30 | 0·20 | 0·70 | 0·80 | 0·30 | 5·60 | 15·10 | 6·00 | ... | ... | ... | 30·80 |
| 1879 | ... | ... | ... | ... | ... | 10·60 | 14·90 | 14·20 | 13·10 | 4·00 | ... | ... | 56·80 |
| 1880 | ... | 1·60 | ... | ... | 3·10 | 0·20 | 15·80 | 3·50 | 1·80 | 0·30 | 0·60 | 0·30 | 27·20 |
| 1881 | ... | ... | 0·30 | ... | 1·30 | 5·10 | 5·50 | 9·50 | 2·60 | ... | ... | ... | 24·30 |
| 1882 | ... | 0·30 | ... | ... | 0·40 | 7·40 | 5·30 | 6·70 | 6·40 | 1·80 | ... | ... | 28·30 |
| 1883 | 3·20 | 0·20 | 0·10 | ... | ... | 4·70 | 13·30 | 3·50 | 4·30 | ... | ... | ... | 29·30 |
| Mean | 0·73 | 0·34 | 0·21 | 0·24 | 0·80 | 5·83 | 12·18 | 10·00 | 8·46 | 1·62 | 0·04 | 0·11 | 40·56 |
| 1884 | ... | ... | 0·20 | ... | 0·40 | 2·50 | 7·00 | 13·28 | 13·52 | 2·89 | ... | ... | 39·79 |
| 1885 | 0·58 | ... | ... | 1·50 | ... | 11·29 | 13·43 | 11·00 | 3·15 | ... | ... | 2·49 | 43·44 |
| 1886 | ... | ... | 0·61 | ... | 1·82 | 6·33 | 18·32 | 12·94 | 6·60 | 6·93 | ... | 1·00 | 54·55 |
| Mean | 0·65 | 0·29 | 0·22 | 0·28 | 0·79 | 5·96 | 12·29 | 10·36 | 8·36 | 1·87 | 0·03 | 0·27 | 41·37 |

No. 87. RAE BARELI.

Latitude N. 26° 14′. Longitude E. 81° 16′. Elevation 350 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1867 | ? | ? | ? | ? | ? | 14·60 | 20·30 | 5·40 | 12·80 | 1·40 | ... | ... | ? |
| 1868 | 0·80 | ... | ? | ... | 0·60 | 3·40 | 9·75 | 2·40 | 11·10 | ... | ... | ... | 28·05? |
| 1869 | ... | ... | 1·10 | ... | ... | 0·20 | 9·60 | 8·40 | 7·20 | 8·50 | ... | 0·30 | 35·30 |
| 1870 | ... | 0·20 | 0·80 | 0·30 | 0·10 | 5·70 | 14·60 | 18·80 | 6·20 | 2·00 | ... | ... | 48·70 |
| 1871 | 1·00 | 0·60 | ... | 1·30 | 0·70 | 5·40 | 11·10 | 5·00 | 20·70 | ... | ... | 1·20 | 47·00 |
| 1872 | 1·40 | 0·30 | 1·20 | ... | 0·10 | 4·00 | 10·60 | 14·60 | 3·10 | ... | ... | 0·10 | 35·40 |
| 1873 | 0·20 | 0·20 | 0·10 | ... | 0·90 | 0·30 | 19·40 | 9·30 | 13·20 | ... | ... | ... | 43·60 |
| 1874 | 0·20 | 0·80 | ... | ... | ... | 10·60 | 7·00 | 10·10 | 9·20 | ... | ... | ... | 37·90 |
| 1875 | 0·30 | 0·50 | ... | ... | ... | 3·20 | 11·40 | 12·10 | 7·90 | ... | ... | ... | 35·40 |
| 1876 | 0·20 | ... | ... | ... | ... | 0·20 | 13·10 | 7·50 | 4·20 | 1·50 | ... | ... | 26·70 |

RAE BARELI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | 0·70 | 0·90 | 0·40 | 0·60 | 0·40 | 0·80 | 1·90 | 1·90 | 1·60 | 1·70 | ... | 0·30 | 11·20 |
| 1878 | 1·80 | 0·10 | ... | ... | ... | 3·90 | 5·60 | 7·90 | 6·00 | ... | ... | ... | 25·30 |
| 1879 | ... | ... | ... | ... | ... | 4·10 | 5·40 | 10·30 | 12·80 | 1·90 | ... | ... | 34·50 |
| 1880 | ... | 0·40 | ... | ... | 0·60 | ... | 3·50 | 0·90 | 1·40 | ... | 0·40 | 0·10 | 7·30 |
| 1881 | ... | 0·10 | ... | ... | 0·70 | 1·50 | 5·30 | 11·10 | 1·80 | 0·20 | ... | ... | 20·70 |
| 1882 | ... | 0·10 | ... | ... | 0·20 | 5·90 | 10·80 | 7·00 | 1·10 | 0·34 | ... | ... | 25·44 |
| 1883 | 2·78 | 0·12 | 0·15 | ... | 0·09 | 1·91 | 9·06 | 3·53 | 10·58 | ... | ... | ... | 28·22 |
| Mean | 0·59 | 0·27 | 0·25 | 0·14 | 0·27 | 3·87 | 9·91 | 8·01 | 7·70 | 1·03 | 0·02 | 0·12 | 32·18 |
| 1884 | ... | ... | ... | ... | 0·84 | 3·20 | 9·89 | 12·80 | 9·20 | 2·05 | ... | ... | 37·98 |
| 1885 | 0·86 | ... | ... | 0·02 | 0·34 | 7·90 | 10·38 | 19·43 | 3·36 | ... | ... | 2·82 | 45·11 |
| 1886 | ... | ... | 0·67 | ... | 1·57 | 11·91 | 14·89 | 9·96 | 7·97 | 3·96 | ... | 0·83 | 51·76 |
| Mean | 0·54 | 0·23 | 0·23 | 0·12 | 0·38 | 4·44 | 10·18 | 8·92 | 7·57 | 1·18 | 0·02 | 0·28 | 34·09 |

No. 88. PARTABGARH.

Latitude N. 25° 53′. Longitude E. 81° 59′. Elevation 340 feet.

Administration: N.-W. Provinces and Oudh. Rainfall Province No. III.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ? | ? | ? | ? | ? | 8·80 | 11·40 | 5·30 | 20·30 | 1·90 | ... | ... | ? |
| 1868 | 1·20 | 0·70 | ... | 0·10 | 1·50 | 2·30 | 12·70 | 4·70 | 9·70 | ... | ... | ... | 32·90 |
| 1869 | 0·10 | ... | 0·80 | ... | ... | 0·70 | 9·80 | 4·10 | 15·70 | 6·20 | ... | ... | 37·40 |
| 1870 | ... | ... | 1·60 | 0·60 | 0·40 | 5·30 | 27·00 | 14·30 | 8·80 | 6·60 | ... | ... | 64·60 |
| 1871 | 0·70 | 0·50 | ... | ... | 0·50 | 7·10 | 30·80 | 7·80 | 18·60 | ... | ... | 0·80 | 66·80 |
| 1872 | 2·70 | 0·20 | ... | ... | ... | 5·10 | 10·50 | 13·20 | 3·80 | ... | ... | ... | 35·50 |
| 1873 | 0·50 | ... | 0·30 | ... | 0·20 | 0·10 | 11·00 | 11·60 | 6·60 | ... | ... | ... | 30·30 |
| 1874 | ... | 0·40 | ... | ... | ... | 11·90 | 8·20 | 8·00 | 2·70 | ... | ... | ... | 31·20 |
| 1875 | ... | 1·10 | ... | ... | 0·30 | 5·30 | 5·20 | 16·60 | 10·40 | ... | ... | ... | 38·90 |
| 1876 | ... | ... | ... | ... | ... | 1·20 | 9·80 | 7·10 | 5·00 | 3·00 | ... | ... | 26·10 |
| 1877 | 2·30 | 1·80 | 0·80 | ... | 0·60 | 3·10 | 2·80 | 4·08 | 2·30 | 2·05 | ... | 0·80 | 20·63 |
| 1878 | 2·35 | ... | ... | 0·40 | 2·40 | 3·00 | 3·40 | 9·35 | 5·00 | 0·50 | ... | ... | 26·40 |
| 1879 | ... | ... | ... | ... | ... | 7·80 | 12·60 | 20·65 | 9·95 | 5·00 | ... | ... | 56·00 |
| 1880 | ... | 1·40 | ... | ... | 0·60 | 1·80 | 8·30 | 5·25 | 2·05 | 0·95 | 0·90 | 0·10 | 21·35 |
| 1881 | ... | 0·05 | 0·40 | ... | 0·25 | 5·05 | 7·50 | 24·15 | 2·40 | 0·55 | ... | ... | 40·35 |
| 1882 | ... | 0·35 | ... | ... | 0·30 | 7·80 | 3·20 | 3·72 | 2·73 | 4·30 | 0·20 | ... | 22·60 |
| 1883 | 2·20 | 0·10 | 0·25 | ... | 0·55 | 1·11 | 9·52 | 3·95 | 5·37 | ... | ... | ... | 23·05 |
| Mean | 0·75 | 0·41 | 0·26 | 0·07 | 0·48 | 4·56 | 10·81 | 9·64 | 7·73 | 1·83 | 0·06 | 0·10 | 36·70 |
| 1884 | ... | ... | ... | ... | 0·77 | 4·09 | 6·21 | 10·27 | 8·98 | 3·01 | ... | ... | 33·33 |
| 1885 | 1·58 | ... | ... | ... | 0·40 | 5·39 | 7·34 | 13·38 | 2·42 | ... | 0·17 | 2·41 | 33·09 |
| 1886 | ... | ... | 1·10 | ... | 1·62 | 10·17 | 10·71 | 9·38 | 6·29 | 3·49 | ... | 2·15 | 44·91 |
| Mean | 0·72 | 0·35 | 0·28 | 0·06 | 0·55 | 4·86 | 10·40 | 9·84 | 7·45 | 1·88 | 0·60 | 0·31 | 37·30 |

No. 89. CAWNPORE.

Latitude N. 26° 28′. Longitude E. 80° 24′. Elevation 417 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | 1·50 | ... | 10·13 | 7·19 | 4·22 | ... | ... | 0·04 | ? |
| 1845 | 0·41 | 2·00 | 0·57 | 0·03 | 0·56 | 6·89 | 12·58 | 7·31 | 0·33 | ... | ... | 0·13 | 30·81 |
| 1846 | 0·30 | ... | ... | ... | 0·40 | 10·74 | 7·64 | 4·05 | 8·99 | 0·16 | ... | ... | 32·28 |
| 1847 | 0·63 | 0·15 | ... | ... | 0·15 | 1·17 | 10·10 | 12·53 | 2·67 | 1·50 | 1·75 | ... | 30·65 |
| 1848 | ... | 1·00 | 0·17 | ... | 0·40 | 1·49 | 8·77 | 8·40 | 10·78 | ... | ... | 0·02 | 31·03 |
| 1849 | 2·42 | 0·30 | ... | ... | 0·23 | 5·97 | 2·60 | 8·60 | 5·13 | 3·40 | ... | ... | 28·65 |
| 1850 | 2·88 | 1·87 | 0·12 | 0·23 | ... | 0·84 | 4·59 | 17·33 | 8·17 | 0·14 | ... | ... | 36·17 |
| 1851 | 1·65 | 1·24 | ... | 0·11 | ... | 3·34 | 16·30 | 9·18 | 7·01 | 0·65 | ... | ... | 39·48 |
| 1852 | 0·18 | ... | 0·71 | 0·40 | 0·34 | 2·61 | 5·82 | 2·35 | 8·59 | ... | 0·08 | 0·14 | 21·22 |
| 1853 | 0·40 | 0·30 | ... | 0·26 | 0·12 | 3·41 | 12·52 | 1·98 | 0·76 | 3·49 | ... | ... | 23·24 |
| 1854 | 1·13 | 1·10 | ... | 0·07 | 0·08 | 9·80 | 6·08 | 9·05 | 4·97 | 2·94 | 0·61 | ... | 35·83 |
| 1855 | 0·08 | 0·30 | 0·74 | 1·20 | ... | 1·81 | 10·48 | 0·30 | 6·46 | 0·15 | ? | ? | 21·52? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 0·40 | 12·00 | 7·00 | 2·20 | 0·10 | ... | ... | ? |
| 1861 | ... | ... | 0·70 | 0·10 | 0·30 | 4·40 | 18·60 | 6·40 | 11·20 | 0·30 | ... | 0·20 | 42·20 |
| 1862 | 0·60 | ... | 0·10 | ... | 0·10 | 2·10 | 9·30 | 11·30 | 5·20 | ... | ... | ... | 28·70 |
| 1863 | 0·50 | ... | ... | ... | 0·40 | 3·50 | 17·50 | 14·60 | 1·20 | 4·90 | ... | ... | 42·60 |
| 1864 | 0·70 | 1·00 | ... | ... | 0·10 | 1·50 | 5·00 | 7·80 | 3·50 | ... | ... | ... | 19·60 |
| 1865 | 1·20 | ... | 1·20 | ... | 1·60 | 1·70 | 11·90 | 6·00 | 4·00 | ... | ... | ... | 27·60 |
| 1866 | 0·70 | 0·70 | ... | ... | ... | 1·30 | 10·90 | 8·90 | 4·10 | ... | ... | ... | 26·60 |
| 1867 | 1·40 | ... | ... | 1·10 | 2·10 | 11·00 | 21·90 | 5·30 | 5·70 | 3·80 | ... | 0·50 | 52·80 |
| 1868 | 0·60 | ... | 0·30 | ... | 0·60 | 1·30 | 2·70 | 1·00 | 4·60 | ... | ... | ... | 11·10 |
| 1869 | ... | ... | 1·10 | ... | ... | 3·70 | 10·30 | 2·80 | 11·80 | 4·00 | ... | 0·20 | 33·90 |
| 1870 | ... | ... | 0·80 | ... | ... | 2·50 | 5·20 | 17·10 | 11·10 | 4·70 | ... | ... | 41·40 |
| 1871 | 0·80 | 1·80 | ... | 0·30 | 1·20 | 6·30 | 9·80 | 7·70 | 5·60 | ... | ... | 1·70 | 35·20 |
| 1872 | 1·10 | ... | ... | 0·10 | 0·20 | 5·10 | 19·50 | 12·90 | 2·30 | ... | ... | ... | 41·20 |
| 1873 | ... | ... | 0·10 | ... | ... | ... | 9·70 | 13·10 | 6·90 | ... | ... | ... | 29·80 |
| 1874 | ... | 0·10 | ... | ... | ... | 6·40 | 9·20 | 7·70 | 3·70 | ... | ... | ... | 27·10 |
| 1875 | ... | 0·70 | ... | ... | 0·10 | 0·60 | 6·60 | 10·70 | 9·70 | ... | ... | 0·50 | 28·90 |
| 1876 | ... | ... | 0·50 | 0·10 | 0·10 | ... | 10·20 | 7·10 | 3·30 | ... | ... | ... | 21·30 |
| 1877 | 1·30 | 2·40 | ... | 0·40 | 0·50 | 0·40 | 1·70 | 3·70 | 0·90 | 3·40 | ... | 2·00 | 16·70 |
| 1878 | 2·90 | 0·40 | ... | ... | 1·30 | 0·90 | 6·90 | 7·70 | 2·40 | ... | ... | ... | 22·50 |
| 1879 | ... | ... | ... | ... | ... | 3·40 | 8·00 | 12·10 | 2·70 | 1·90 | ... | ... | 28·10 |
| 1880 | ... | ... | ... | ... | 1·00 | 0·10 | 3·50 | 1·50 | 0·60 | 0·10 | ... | 0·30 | 7·10 |
| 1881 | ... | 0·10 | 0·40 | ... | 1·50 | 5·50 | 12·40 | 17·30 | 0·40 | 0·20 | ... | ... | 37·80 |
| 1882 | ... | 0·20 | ... | 0·40 | 0·30 | 9·80 | 8·28 | 8·23 | 1·21 | 0·68 | ... | ... | 29·10 |
| 1883 | 3·10 | 0·10 | 1·10 | ... | ... | 0·80 | 9·60 | 4·10 | 2·70 | ... | ... | ... | 21·50 |
| Mean | **0·73** | **0·46** | **0·25** | **0·14** | **0·43** | **3·35** | **9·67** | **8·06** | **4·86** | **1·01** | **0·07** | **0·16** | **29·19** |
| 1884 | ... | ... | ... | ... | 0·92 | 2·13 | 6·68 | 26·65 | 9·70 | 6·52 | ... | 0·10 | 52·70 |
| 1885 | 0·11 | ... | ... | 0·42 | 1·01 | 6·69 | 14·62 | 15·66 | 1·57 | 0·29 | ... | 2·56 | 42·93 |
| 1886 | 0·19 | ... | 0·34 | ... | 0·99 | 5·17 | 8·69 | 12·11 | 1·75 | 4·16 | ... | 0·39 | 33·79 |
| Mean | **0·68** | **0·43** | **0·24** | **0·14** | **0·48** | **3·46** | **9·70** | **8·84** | **4·82** | **1·22** | **0·06** | **0·23** | **30·30** |

No. 90. FATEHPUR.

Latitude N. 25° 55′. Longitude E. 80° 53′. Elevation 375 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | ... | 0·31 | 12·51 | 12·60 | 3·06 | ... | ... | ... | ? |
| 1845 | 0·27 | 2·16 | 0·56 | ... | 0·02 | 2·87 | 14·24 | 8·53 | 1·95 | ... | ... | 0·41 | 31·01 |
| 1846 | ... | ... | 0·08 | ... | 0·16 | 4·90 | 5·74 | 7·07 | 5·99 | ... | ... | ... | 23·94 |
| 1847 | ? | ... | ... | ... | ... | 1·45 | 5·78 | 7·46 | 3·38 | 0·77 | 1·33 | ... | ? |
| 1848 | ... | 0·25 | ... | ... | 0·10 | 0·86 | 4·69 | 3·50 | 2·29 | ... | ... | 0·30 | 11·99 |
| 1849 | 2·61 | ... | ... | 0·08 | 0·24 | 1·34 | 3·99 | 6·05 | 2·81 | 3·77 | ... | 0·40 | 21·29 |
| 1850 | 0·81 | 0·86 | 0·25 | 0·24 | ... | 1·07 | 3·45 | 11·77 | 5·57 | 1·07 | ... | ... | 25·09 |
| 1851 | 2·02 | 0·65 | ... | 0·10 | ... | 1·05 | 8·85 | 7·40 | 6·06 | 1·20 | ... | ... | 27·33 |
| 1852 | 0·20 | ... | 0·90 | ... | 0·40 | 6·10 | 11·90 | 3·50 | 7·50 | ... | ... | 0·30 | 30·80 |
| 1853 | 0·70 | 0·40 | ... | 0·65 | ... | 4·45 | 11·30 | 2·90 | 0·80 | 5·10 | ... | ... | 26·30 |
| 1854 | ... | 1·60 | ... | ... | ... | 8·19 | 3·31 | 7·78 | 3·12 | 3·85 | 1·71 | ... | 29·56 |
| 1855 | ... | 0·06 | 0·74 | 0·72 | ... | 1·32 | 8·67 | 0·02 | 8·82 | 0·06 | ? | ? | 20·41 ? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 0·60 | 7·00 | 8·50 | 2·50 | 1·20 | ... | ... | ? |
| 1861 | ... | ... | ... | ... | 1·10 | 7·50 | 18·60 | 6·40 | 7·90 | 1·10 | ... | ... | 42·60 |
| 1862 | 0·40 | ... | 0·30 | ... | 0·70 | 1·40 | 13·40 | 8·20 | 3·60 | 1·10 | ... | ... | 29·10 |
| 1863 | 0·50 | ... | ... | ... | ... | 2·80 | 6·70 | 14·50 | 4·10 | 3·20 | ... | ... | 31·80 |
| 1864 | 0·70 | 0·50 | ... | 0·50 | 0·20 | 0·60 | 3·10 | 4·60 | 4·70 | ... | ... | ... | 14·90 |
| 1865 | 0·60 | ... | 0·80 | ... | 1·00 | 0·60 | 7·50 | 13·20 | 3·10 | ... | ... | ... | 26·80 |
| 1866 | 0·70 | 0·60 | ... | 0·50 | ... | 1·70 | 11·00 | 9·20 | 4·80 | ... | ... | ... | 28·50 |
| 1867 | 1·40 | 0·60 | ... | 0·30 | 0·70 | 10·20 | 13·70 | 7·90 | 12·50 | 3·10 | ... | 0·10 | 50·50 |
| 1868 | 1·70 | 0·60 | ... | ... | 0·60 | 4·60 | 4·40 | 2·00 | 9·30 | ... | ... | ... | 23·20 |
| 1869 | ... | ... | 1·80 | ... | ... | 1·70 | 8·00 | 5·90 | 18·10 | 6·10 | ... | 0·50 | 42·10 |
| 1870 | ... | 0·10 | 0·20 | 0·30 | ... | 2·90 | 12·10 | 27·60 | 6·90 | 3·80 | ... | ... | 53·40 |
| 1871 | ... | 0·60 | ... | 1·30 | 0·60 | 10·70 | 12·30 | 7·70 | 11·70 | ... | ... | 1·40 | 46·30 |
| 1872 | 1·60 | 0·20 | 0·60 | 0·50 | 0·30 | 9·30 | 10·70 | 16·90 | 2·90 | ... | ... | ... | 43·00 |
| 1873 | 0·60 | ... | 0·50 | ... | 0·20 | 0·60 | 20·50 | 8·20 | 10·90 | ... | ... | ... | 41·50 |
| 1874 | ... | 0·10 | ... | ... | ... | 9·30 | 10·00 | 12·30 | 2·80 | 0·20 | ... | ... | 34·70 |
| 1875 | 0·20 | 0·30 | ... | ... | 0·30 | 2·20 | 7·40 | 9·00 | 10·10 | 0·60 | ... | 0·20 | 30·30 |
| 1876 | 0·10 | 0·10 | 0·10 | ... | ... | 0·40 | 19·40 | 5·70 | 4·00 | 0·90 | ... | ... | 30·70 |
| 1877 | 0·90 | 1·40 | 1·00 | ... | 1·30 | 0·40 | 3·60 | 3·25 | 2·70 | 3·00 | ... | 0·30 | 17·85 |
| 1878 | 3·35 | ... | ... | 0·20 | 1·85 | 1·60 | 6·50 | 8·00 | 7·00 | ... | ... | ... | 28·90 |
| 1879 | ... | ... | ... | ... | ... | 6·20 | 7·40 | 11·30 | 4·00 | 4·10 | ... | ... | 33·00 |
| 1880 | ... | 0·50 | ... | ... | ... | ... | 8·70 | 0·50 | 1·40 | ... | 0·30 | 0·30 | 11·70 |
| 1881 | ... | 0·30 | ... | ... | 0·10 | 5·10 | 8·10 | 18·70 | 6·70 | 0·40 | ... | ... | 39·40 |
| 1882 | ... | 1·40 | ... | 0·40 | 0·30 | 6·90 | 4·64 | 8·23 | 0·97 | 1·55 | ... | ... | 24·39 |
| 1883 | 3·28 | 0·41 | 0·09 | ... | 1·33 | 5·09 | 23·68 | 1·55 | 4·77 | ... | ... | ... | 40·20 |
| Mean | 0·69 | 0·40 | 0·23 | 0·17 | 0·33 | 3·51 | 9·53 | 8·28 | 5·52 | 1·27 | 0·10 | 0·12 | 30·15 |
| 1884 | 0·05 | ... | ... | ... | 0·06 | 2·55 | 15·64 | 17·97 | 7·12 | ... | ... | ... | 43·39 |
| 1885 | 0·12 | ... | ... | ... | 2·02 | 2·77 | 12·13 | 19·06 | 0·93 | ... | ... | 5·41 | 42·44 |
| 1886 | ... | ... | 2·22 | ... | ... | 8·70 | 10·12 | 8·25 | 1·78 | 4·36 | ... | 1·72 | 37·15 |
| Mean | 0·63 | 0·37 | 0·27 | 0·16 | 0·36 | 3·60 | 9·77 | 8·80 | 5·35 | 1·28 | 0·09 | 0·30 | 30·98 |

No. 91. JALAUN.

Latitude N. 26° 9′. Longitude E. 79° 23′. Elevation 450 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1861 | ? | ? | ? | ? | ? | 6·50 | 11·70 | 7·20 | 7·00 | ... | ... | ... | ? |
| 1862 | ... | ... | ... | ... | ... | 3·40 | 6·80 | 14·80 | 11·10 | 2·80 | ... | ... | 38·90 |
| 1863 | ... | ... | ... | ... | ... | 1·60 | 11·70 | 13·10 | 0·40 | ... | ... | .... | 26·80 |
| 1864 | 0·30 | ... | ... | ... | ... | ... | 2·70 | 6·70 | 6·30 | ... | ... | ... | 16·00 |
| 1865 | 0·10 | ... | 1·70 | ... | ... | 1·30 | 5·40 | 14·80 | 5·40 | ... | ... | ... | 28·70 |
| 1866 | ... | ... | ... | ... | ... | 2·80 | 11·90 | 8·80 | 2·60 | ... | ... | ... | 26·10 |
| 1867 | 0·40 | ... | ... | 0·40 | ... | 3·90 | 18·00 | 7·60 | 7·50 | 2·10 | ... | 0·30 | 40·20 |
| 1868 | 1·20 | ... | ... | ... | ... | 1·10 | 5·10 | 0·90 | 1·70 | ... | ... | ... | 10·00 |
| 1869 | ... | ... | 2·10 | ... | ... | 1·10 | 8·80 | 3·60 | 11·90 | 3·80 | ... | 0·20 | 31·50 |
| 1870 | ... | ... | ... | ... | ... | 3·20 | 4·40 | 17·70 | 7·90 | 2·00 | ... | ... | 35·20 |
| 1871 | 1·90 | 1·10 | ... | ... | 1·00 | 8·30 | 9·10 | 20·80 | 6·70 | ... | ... | 1·50 | 50·40 |
| 1872 | 0·10 | 0·50 | ... | ... | ... | 1·90 | 10·10 | 10·80 | 4·00 | ... | ... | 0·20 | 27·60 |
| 1873 | 0·50 | ... | 0·30 | ... | 2·00 | 2·10 | 12·70 | 5·40 | 5·80 | ... | ... | ... | 28·80 |
| 1874 | ... | ... | ... | ... | ... | 6·40 | 19·00 | 12·20 | 3·40 | ... | ... | ... | 41·00 |
| 1875 | ... | 1·80 | ... | ... | 0·30 | ... | 18·70 | 14·40 | 7·40 | ... | ... | ... | 41·80 |
| 1876 | ... | ... | ... | ... | ... | 0·20 | 15·80 | 6·20 | 9·00 | ... | ... | ... | 31·20 |
| 1877 | 0·70 | 1·40 | ... | 0·20 | 0·30 | 0·50 | 2·20 | 0·10 | 2·20 | 2·50 | ... | 2·40 | 12·50 |
| 1878 | 2·00 | 0·10 | ... | 0·30 | 0·10 | ... | 6·50 | 7·20 | 10·20 | ... | ... | ... | 26·40 |
| 1879 | 0·40 | ... | ... | ... | ... | 3·30 | 7·50 | 25·60 | 3·00 | 2·00 | ... | ... | 41·80 |
| 1880 | ... | ... | ... | 0·60 | 0·90 | ... | 7·90 | 0·60 | 2·00 | 0·30 | 0·40 | ... | 12·70 |
| 1881 | ... | 0·20 | 0·40 | ... | ... | 1·80 | 16·80 | 28·30 | 0·60 | ... | ... | ... | 48·10 |
| 1882 | ... | ... | ... | ... | ... | 10·20 | 15·40 | 6·40 | 2·10 | ... | ... | ... | 34·10 |
| 1883 | 1·80 | 0·10 | 0·10 | ... | 0·80 | 0·80 | 12·00 | 4·40 | 6·60 | ... | ... | ... | 26·60 |
| Mean | 0·43 | 0·20 | 0·21 | 0·07 | 0·25 | 2·63 | 10·44 | 10·33 | 5·43 | 0·67 | 0·02 | 0·20 | 30·88 |
| 1884 | ... | 0·10 | ... | ... | ... | 2·50 | 7·70 | 22·40 | 5·10 | 2·10 | ... | ... | 39·90 |
| 1885 | ... | ... | ... | ... | 1·30 | 10·80 | 10·90 | 13·20 | 1·90 | ... | ... | 1·50 | 39·60 |
| 1886 | ... | ... | ... | ... | ... | 1·50 | 19·20 | 5·60 | 11·80 | 1·50 | ... | 0·50 | 40·10 |
| Mean | 0·38 | 0·18 | 0·18 | 0·06 | 0·27 | 2·89 | 10·69 | 10·72 | 5·52 | 0·73 | 0·02 | 0·25 | 31·89 |

No. 92. HAMIRPUR.

Latitude N. 25° 58′. Longitude E. 80° 12′. Elevation 362 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | ... | 0·02 | 10·65 | 10·25 | 4·11 | ... | ... | 0·08 | ? |
| 1845 | 0·25 | 1·11 | 0·70 | 0·01 | 0·45 | 4·68 | 17·40 | 9·44 | 1·81 | ... | ... | 0·89 | 36·74 |
| 1846 | 0·12 | 0·04 | ... | ... | 0·32 | 13·57 | 7·64 | 10·37 | 5·02 | ... | ... | ... | 37·08 |
| 1847 | 0·56 | 0·05 | ... | ... | ... | 3·84 | 11·07 | 11·67 | 3·11 | 1·93 | 2·65 | ... | 34·88 |
| 1848 | ... | 0·77 | ... | ... | 0·05 | 1·08 | 4·24 | 2·51 | 10·64 | 0·14 | ... | 1·04 | 20·47 |
| 1849 | 2·83 | 0·06 | ... | ... | 0·26 | 6·77 | 4·48 | 7·75 | 1·78 | 0·77 | ... | 0·14 | 24·84 |
| 1850 | 0·90 | 1·65 | 0·18 | 0·26 | ... | 2·55 | 2·43 | 17·75 | 4·80 | 0·45 | ... | ... | 30·97 |
| 1851 | 1·45 | 0·80 | 0·04 | 0·03 | ... | 5·83 | 13·11 | 9·89 | 4·70 | 0·50 | ... | ... | 36·35 |
| 1852 | 0·01 | ... | 1·19 | ... | 0·20 | 10·30 | 13·40 | 6·34 | 4·50 | ... | ... | 0·50 | 36·44 |
| 1853 | 0·30 | 0·25 | ... | 0·60 | ... | 1·50 | 10·38 | 2·38 | 0·61 | 1·10 | ... | ... | 17·12 |
| 1854 | ... | 0·90 | ... | ... | ... | 10·47 | 7·15 | 10·55 | 5·48 | 4·44 | 1·75 | 0·01 | 40·75 |
| 1855 | 0·06 | 0·97 | 0·87 | 0·98 | ... | 1·96 | 17·61 | 0·28 | 8·16 | 0·14 | ? | ? | 31·03? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 0·20 | 7·30 | 8·50 | 8·00 | ... | ... | ... | ? |
| 1861 | 0·20 | ... | 0·60 | ... | 2·20 | 3·80 | 23·00 | 4·80 | 4·60 | ... | ... | 0·20 | 39·40 |
| 1862 | 0·50 | ... | 0·10 | ... | 0·20 | 2·70 | 11·00 | 11·60 | 7·00 | 0·70 | ... | ... | 33·80 |
| 1863 | 0·20 | ... | ... | ... | ... | 3·20 | 17·90 | 15·20 | 0·40 | 2·40 | ... | ... | 39·30 |
| 1864 | 0·60 | 0·50 | ... | 0·20 | 0·70 | 2·20 | 3·80 | 5·20 | 2·70 | ... | ... | ... | 15·90 |
| 1865 | 0·30 | ... | 0·90 | ... | 0·20 | 1·80 | 10·50 | 11·90 | 3·50 | ... | ... | ... | 29·10 |
| 1866 | 0·10 | 0·50 | ... | 0·10 | ... | 4·10 | 21·20 | 5·80 | 3·40 | ... | ... | ... | 35·20 |
| 1867 | 1·70 | ... | ... | 0·40 | 0·30 | 6·30 | 21·80 | 10·70 | 8·70 | 2·10 | ... | 0·50 | 52·50 |
| 1868 | 1·00 | 0·30 | ... | 0·20 | ... | 1·10 | 6·50 | 0·70 | 7·70 | ... | ... | 0·70 | 18·20 |
| 1869 | ... | ... | 1·10 | ... | ... | 1·50 | 9·50 | 4·00 | 17·20 | 6·00 | ... | 0·30 | 39·60 |
| 1870 | ... | ... | 0·20 | ... | ... | 3·20 | 10·70 | 19·70 | 10·50 | 1·80 | ... | ... | 46·10 |
| 1871 | ... | 1·10 | ... | 0·20 | 0·60 | 7·60 | 13·80 | 10·80 | 5·90 | ... | ... | 1·40 | 41·40 |
| 1872 | 0·90 | 0·30 | 0·30 | 0·20 | ... | 4·30 | 17·80 | 14·00 | 1·70 | ... | ... | ... | 39·50 |
| 1873 | 0·40 | 0·10 | 0·60 | ... | 1·40 | 1·20 | 17·20 | 5·80 | 11·70 | ... | ... | ... | 38·40 |
| 1874 | ... | 0·10 | 0·10 | ... | ... | 15·50 | 13·80 | 12·80 | 3·70 | ... | ... | ... | 46·00 |
| 1875 | ... | 0·20 | ... | ... | ... | 2·50 | 12·00 | 9·70 | 10·60 | 0·10 | ... | 0·40 | 35·50 |
| 1876 | ... | ... | ... | ... | ... | 0·20 | 18·90 | 3·90 | 8·40 | 0·40 | ... | ... | 31·80 |
| 1877 | 0·20 | 1·00 | 0·20 | ... | 1·70 | 1·10 | 1·40 | 3·70 | 0·70 | 1·60 | 0·10 | 1·50 | 13·20 |
| 1878 | 2·90 | 0·10 | ... | ... | 2·30 | 0·70 | 4·80 | 8·40 | 7·00 | 0·60 | ... | ... | 26·80 |
| 1879 | ... | ... | ... | ... | ... | 1·40 | 11·50 | 4·50 | 1·50 | 3·70 | ... | ... | 22·60 |
| 1880 | ... | ... | ... | ... | ... | 0·60 | 6·90 | 1·90 | 0·70 | ... | 0·30 | ... | 10·40 |
| 1881 | ... | ... | 0·10 | 0·01 | 0·20 | 3·20 | 11·60 | 11·20 | 1·00 | ... | ... | ... | 27·31 |
| 1882 | ... | 0·10 | ... | ... | ... | 15·90 | 7·40 | 6·40 | 1·40 | 0·26 | 0·03 | ... | 31·49 |
| 1883 | 1·83 | 0·15 | 0·14 | ... | 0·07 | 2·73 | 15·02 | 1·41 | 7·59 | 0·04 | ... | ... | 28·98 |
| Mean | 0·51 | 0·33 | 0·22 | 0·09 | 0·32 | 4·16 | 11·52 | 8·11 | 5·29 | 0·81 | 0·14 | 0·22 | 31·72 |
| 1884 | 0·11 | ... | ... | ... | 0·13 | 2·95 | 11·51 | 26·10 | 8·13 | 3·64 | ... | 0·02 | 52·59 |
| 1885 | 0·40 | ... | 0·04 | 0·51 | 0·98 | 8·06 | 12 60 | 15·77 | 0·96 | 0·15 | ... | 3·74 | 43·21 |
| 1886 | ... | ... | 0·20 | ... | 0·34 | 5·62 | 10·12 | 6·51 | 3·63 | 3·09 | ... | 1·57 | 31·08 |
| Mean | 0·48 | 0·30 | 0·20 | 0·10 | 0·33 | 4·26 | 11·52 | 8·72 | 5·21 | 0·92 | 0·13 | 0·34 | 32·51 |

No. 93. BÁNDÁ.

Latitude N. 25° 28′. Longitude E. 80° 22′. Elevation 414 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | ? | 1·77 | 10·73 | 17·49 | 3·61 | ... | ... | ... | ? |
| 1845 | 0·01 | 0·23 | 0·06 | ... | 0·10 | 5·31 | 14·22 | 11·03 | 2·47 | ... | ... | 0·62 | 34·05 |
| 1846 | ... | 1·02 | 0·67 | ... | 0·13 | 9·81 | 5·61 | 6·70 | 4·76 | ... | ... | ... | 28·70 |
| 1847 | 0·52 | 0·20 | ... | ... | ... | 0·90 | 8·01 | 13·29 | 0·63 | 0·66 | 2·98 | ... | 27·19 |
| 1848 | ... | ... | ... | ... | ... | 1·04 | 6·42 | 4·96 | 12·89 | 0·70 | ... | 0·20 | 26·21 |
| 1849 | 3·74 | ... | ... | ... | 0·85 | 3·15 | 8·22 | 4·98 | 3·75 | 2·08 | 0·24 | 0·52 | 27·53 |
| 1850 | 2·96 | 1·65 | ... | 0·85 | ... | 1·47 | 4·31 | 16·01 | 8·91 | 1·19 | ... | ... | 37·35 |
| 1851 | 2·81 | 0·78 | 0·01 | 0·51 | ... | 1·92 | 15·23 | 6·77 | 4·78 | 0·44 | ... | ... | 33·25 |
| 1852 | 0·03 | ... | 0·12 | ... | 0·41 | 3·66 | 11·77 | 4·58 | 3·47 | 3·86 | ... | 0·78 | 28·68 |
| 1853 | 0·07 | 0·25 | ... | 0·73 | ... | 2·99 | 10·36 | 2·07 | 3·55 | 1·95 | ... | ... | 21·97 |
| 1854 | ... | 0·78 | ... | ... | 0·05 | 10·96 | 6·17 | 8·79 | 5·11 | 3·82 | 3·21 | 0·02 | 38·91 |
| 1855 | 0·36 | 1·30 | 1·90 | 0·69 | ... | 3·70 | 21·63 | 0·32 | 11·53 | ... | ? | ? | 41·43 ? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 3·10 | 13·10 | 5·60 | 3·40 | 1·90 | ... | ... | ? |
| 1861 | 0·50 | ... | ... | ... | 1·40 | 5·80 | 20·30 | 4·00 | 4·30 | 0·80 | ... | ... | 37·10 |
| 1862 | 1·00 | ... | 0·30 | ... | 0·80 | 0·70 | 7·40 | 10·30 | 13·00 | 1·80 | ... | ... | 35·30 |
| 1863 | 0·10 | ... | ... | ... | ... | 1·20 | 17·70 | 13·80 | 1·60 | 3·20 | ... | ... | 37·60 |
| 1864 | 0·30 | 0·60 | ... | ... | 0·80 | 1·60 | 4·10 | 6·70 | 1·00 | ... | 0·50 | ... | 15·60 |
| 1865 | 1·50 | 1·10 | 1·90 | ... | 1·20 | 1·90 | 10·40 | 10·70 | 3·40 | ... | ... | ... | 32·10 |
| 1866 | 0·20 | 0·70 | ... | 0·20 | ... | 4·20 | 12·70 | 10·20 | 6·00 | ... | ... | ... | 34·20 |
| 1867 | 2·60 | 0·10 | 0·30 | 0·60 | 1·20 | 9·40 | 16·20 | 19·80 | 11·10 | 3·00 | ... | 0·20 | 64·50 |
| 1868 | 0·70 | ... | 0·40 | 0·10 | 0·70 | 2·00 | 7·20 | 0·60 | 14·60 | ... | ... | 0·20 | 26·50 |
| 1869 | 0·10 | ... | 1·50 | ... | ... | 2·30 | 16·20 | 4·00 | 9·60 | 6·40 | ... | 0·40 | 40·50 |
| 1870 | 0·10 | 0·30 | 1·10 | ... | ... | 2·50 | 12·40 | 16·70 | 11·50 | 1·50 | ... | ... | 46·10 |
| 1871 | ... | 0·10 | ... | 0·10 | 0·90 | 3·50 | 9·70 | 10·80 | 9·60 | ... | ... | 1·00 | 35·70 |
| 1872 | 1·20 | 0·10 | 0·10 | ... | ... | 0·80 | 11·50 | 16·10 | 1·70 | ... | ... | ... | 31·50 |
| 1873 | 0·10 | ... | 0·60 | ... | ... | ... | 20·90 | 4·50 | 6·70 | ... | ... | ... | 32·80 |
| 1874 | ... | ... | ... | ... | 0·20 | 11·10 | 7·10 | 7·20 | 8·40 | ... | ... | ... | 34·00 |
| 1875 | ... | 0·40 | ... | ... | 0·20 | 2·90 | 19·70 | 13·80 | 10·60 | 0·20 | ... | ... | 47·80 |
| 1876 | ... | ... | 0·10 | ... | 0·10 | 1·30 | 21·50 | 10·20 | 7·40 | 0·50 | ... | ... | 41·10 |
| 1877 | 0·60 | 1·00 | 0·40 | ... | 0·20 | ... | 2·00 | 6·20 | 6·40 | 2·20 | 0·10 | 0·30 | 19·40 |
| 1878 | 4·10 | ... | ... | 0·30 | 1·10 | 1·50 | 8·10 | 10·80 | 4·00 | ... | ... | ... | 29·90 |
| 1879 | ... | 0·10 | ... | ... | ... | 1·90 | 14·10 | 9·40 | 6·90 | 3·80 | ... | ... | 36·20 |
| 1880 | ... | ... | ... | ... | 0·20 | 0·80 | 18·20 | 0·30 | 2·40 | 0·10 | 0·80 | ... | 22·80 |
| 1881 | ... | 0·20 | 0·20 | ... | 0·20 | 8·20 | 5·80 | 17·70 | 1·40 | ... | ... | ... | 33·70 |
| 1882 | ... | ... | ... | ... | ... | 20·70 | 8·60 | 5·53 | 3·26 | 2·29 | 0·23 | ... | 40·61 |
| 1883 | 3·20 | ... | ... | ... | 1·60 | 6·16 | 15·11 | 3·95 | 3·65 | 0·16 | ... | ... | 33·83 |
| Mean | 0·79 | 0·32 | 0·28 | 0·12 | 0·36 | 3·90 | 11·74 | 8·77 | 6·04 | 1·18 | 0·23 | 0·12 | 33·85 |
| 1884 | 0·06 | 0·20 | ... | ... | ... | 3·10 | 18·05 | 28·33 | 8·11 | 3·05 | ... | ... | 60·90 |
| 1885 | 0·14 | ... | ... | ... | 0·65 | 8·10 | 8·15 | 17·78 | 2·92 | 0·12 | ... | 3·81 | 41·67 |
| 1886 | ... | ... | 0·59 | ... | 0·35 | 7·10 | 18·11 | 2·55 | 3·91 | 4·59 | ... | 2·45 | 39·65 |
| Mean | 0·73 | 0·30 | 0·28 | 0·11 | 0·36 | 4·07 | 11·97 | 9·35 | 5·96 | 1·29 | 0·21 | 0·28 | 34·91 |

No. 94. ALLAHABAD.

Latitude N. 25° 26′. Longitude E. 81° 52′. Elevation 307 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | P | P | P | P | 0·10 | ... | 14·25 | 16·59 | 5·07 | ... | ... | 0·39 | P |
| 1845 | 0·37 | 2·70 | 0·72 | 1·42 | 0·77 | 4·99 | 7·83 | 15·81 | 2·92 | ... | ... | 0·65 | 38·18 |
| 1846 | ... | 0·42 | 0·25 | ... | ... | 6·82 | 8·66 | 6·27 | 10·77 | ... | ... | ... | 33·19 |
| 1847 | 1·29 | ... | ... | ... | ... | 3·35 | 15·30 | 14·13 | 8·05 | 6·65 | 1·50 | ... | 50·27 |
| 1848 | ... | ... | ... | ... | 0·45 | 3·60 | 11·15 | 5·05 | 1·60 | 1·90 | 0·30 | ... | 24·05 |
| 1849 | 2·53 | ... | ... | ... | ... | 4·06 | 1·00 | 15·02 | 3·00 | 3·82 | ... | ... | 29·43 |
| 1850 | 2·20 | 2·14 | ... | ... | ... | 4·94 | 11·12 | 12·75 | 8·60 | 3·75 | ... | ... | 45·50 |
| 1851 | 4·20 | 1·05 | 0·70 | ... | ... | 3·95 | 18·40 | 13·90 | 9·70 | 3·42 | ... | ... | 55·32 |
| 1852 | 0·30 | ... | 3·47 | ... | 0·11 | 9·68 | 18·69 | 6·79 | 3·60 | 0·77 | ... | 0·54 | 43·95 |
| 1853 | 2·36 | 0·58 | ... | 0·35 | ... | 2·17 | 14·50 | 5·55 | 0·75 | 1·95 | ... | ... | 28·21 |
| 1854 | ... | 1·20 | ... | ... | 0·12 | 17·91 | 7·84 | 17·14 | 6·86 | 4·65 | 5·26 | ... | 60·98 |
| 1855 | 0·29 | 0·25 | 3·15 | 1·40 | ... | 3·26 | 19·32 | 1·48 | 14·76 | ... | P | P | 43·91 P |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | P | P | P | P | P | 0·30 | 11·10 | 7·10 | 11·80 | 3·00 | ... | ... | P |
| 1861 | 0·10 | ... | ... | ... | ... | 5·20 | 9·40 | 4·10 | 15·30 | 3·80 | ... | ... | 37·90 |
| 1862 | 0·10 | ... | 1·30 | ... | 1·50 | 0·40 | 20·00 | 23·30 | 4·00 | 1·20 | ... | ... | 51·80 |
| 1863 | ... | ... | ... | ... | 0·10 | 6·30 | 9·20 | 10·90 | 4·40 | 4·70 | ... | ... | 35·60 |
| 1864 | ... | 0·50 | ... | ... | ... | 0·20 | 2·60 | 9·00 | 3·40 | ... | ... | ... | 15·70 |
| 1865 | 1·60 | 0·90 | 1·50 | ... | 2·50 | 1·50 | 17·60 | 5·80 | 2·00 | ... | ... | ... | 33·40 |
| 1866 | 0·10 | 0·10 | ... | 0·20 | ... | 1·50 | 9·40 | 9·20 | 6·10 | ... | ... | ... | 26·60 |
| 1867 | 1·20 | 1·40 | ... | ... | 1·50 | 3·60 | 13·70 | 8·30 | 18·70 | 2·20 | ... | ... | 50·60 |
| 1868 | 0·60 | 0·20 | ... | ... | ... | 4·10 | 5·80 | 0·60 | 13·60 | ... | ... | ... | 24·90 |
| 1869 | ... | ... | 0·30 | ... | ... | 1·50 | 10·00 | 7·70 | 14·80 | 11·30 | ... | 0·40 | 46·00 |
| 1870 | ... | ... | 0·50 | ... | ... | 6·20 | 16·10 | 17·50 | 3·90 | 7·20 | ... | ... | 51·40 |
| 1871 | ... | 0·30 | ... | 1·10 | 0·70 | 17·00 | 21·90 | 8·10 | 9·70 | ... | ... | 1·60 | 60·40 |
| 1872 | 1·50 | 0·20 | 0·20 | ... | 0·30 | 2·70 | 14·30 | 17·50 | 5·70 | ... | ... | ... | 42·40 |
| 1873 | ... | 0·60 | 0·50 | ... | ... | ... | 19·90 | 7·80 | 6·80 | ... | ... | ... | 35·60 |
| 1874 | ... | ... | 0·10 | ... | ... | 7·10 | 12·70 | 8·60 | 6·80 | ... | ... | ... | 35·30 |
| 1875 | 0·40 | 0·30 | ... | ... | 0·90 | 3·10 | 19·70 | 10·50 | 6·40 | 0·20 | ... | ... | 41·50 |
| 1876 | ... | ... | ... | ... | ... | 1·30 | 10·50 | 8·50 | 4·00 | 5·70 | ... | ... | 30·00 |
| 1877 | 1·90 | 1·10 | 1·10 | 0·20 | ... | 2·50 | 2·10 | 5·50 | 0·10 | 3·80 | ... | 0·30 | 18·60 |
| 1878 | 2·50 | ... | 0·10 | 0·40 | 1·00 | 0·30 | 7·10 | 6·50 | 5·50 | ... | ... | ... | 23·40 |
| 1879 | ... | 0·07 | 0·02 | ... | ... | 9·26 | 6·01 | 9·58 | 13·95 | 3·46 | ... | ... | 42·35 |
| 1880 | ... | 0·79 | ... | ... | 0·38 | 1·05 | 9·84 | 5·41 | 1·73 | ... | 0·85 | 0·19 | 20·24 |
| 1881 | 0·18 | 0·04 | 0·78 | ... | 0·76 | 5·85 | 10·65 | 11·46 | 3·93 | 1·17 | 0·01 | ... | 34·83 |
| 1882 | ... | 0·13 | ... | 0·02 | 0·01 | 11·11 | 14·00 | 10·26 | 3·14 | 3·45 | 0·59 | ... | 42·71 |
| 1883 | 2·68 | 0·02 | 0·39 | ... | 0·34 | 3·87 | 13·48 | 2·10 | 4·92 | 0·79 | ... | ... | 28·59 |
| Mean | 0·78 | 0·44 | 0·44 | 0·25 | 0·33 | 4·46 | 12·09 | 9·61 | 6·84 | 2·19 | 0·24 | 0·11 | 37·68 |
| 1884 | ... | 0·18 | ... | ... | 0·26 | 1·62 | 10·99 | 9·44 | 7·31 | 6·59 | ... | ... | 36·39 |
| 1885 | 1·11 | ... | 0·02 | 0·45 | 0·53 | 8·80 | 9·37 | 11·83 | 2·15 | 0·09 | ... | 2·87 | 37·22 |
| 1886 | 0·12 | 0·04 | 1·22 | ... | 0·50 | 7·65 | 8·41 | 7·51 | 6·73 | 2·82 | 0·01 | 2·15 | 37·16 |
| Mean | 0·75 | 0·41 | 0·44 | 0·15 | 0·34 | 4·58 | 11·90 | 9·60 | 6·73 | 2·27 | 0·22 | 0·24 | 37·63 |

No. 95. JHANSI.

Latitude N. 25° 27′. Longitude E. 78° 37′. Elevation 855 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. V.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1860 | ? | ? | ? | ? | ? | ... | 12·50 | 6·40 | 5·50 | ... | ... | ... | ? |
| 1861 | 0·30 | ... | 0·50 | ... | 0·20 | 10·90 | 24·70 | 5·90 | 6·20 | ... | ... | ... | 48·70 |
| 1862 | 1·10 | ... | 2·00 | ... | ... | 0·80 | 10·20 | 6·70 | 4·20 | 2·40 | ... | ... | 27·40 |
| 1863 | 0·30 | 0·20 | ... | ... | 0·60 | 5·30 | 31·50 | 10·00 | 1·10 | ... | ... | ... | 49·00 |
| 1864 | 1·30 | 0·90 | ... | ... | ... | 0·50 | 6·30 | 10·10 | 3·70 | ... | ... | ... | 22·80 |
| 1865 | 0·40 | 0·30 | 1·60 | 0·20 | 0·40 | 3·30 | 8·40 | 15·30 | 9·00 | ... | ... | ... | 38·90 |
| 1866 | ... | ... | ... | ... | ... | 10·00 | 11·00 | 8·50 | 1·50 | ... | ... | ... | 32·00 |
| 1867 | 0·90 | ... | 0·30 | 0·70 | ... | 8·00 | 21·40 | 11·50 | 5·40 | 3·90 | ... | 0·20 | 52·30 |
| 1868 | 0·40 | ... | ... | 0·60 | ... | 1·80 | 8·20 | 0·20 | 2·10 | ... | ... | ... | 13·30 |
| 1869 | ... | ... | 1·60 | ... | ... | ... | 30·10 | 7·90 | 9·30 | 3·60 | ... | 0·80 | 53·30 |
| 1870 | 0·40 | ... | 1·10 | ... | ... | 6·10 | 8·10 | 10·10 | 5·60 | 0·20 | ... | ... | 31·60 |
| 1871 | 2·50 | 0·50 | ... | 0·30 | 0·90 | 6·80 | 12·20 | 15·90 | 6·10 | ... | ... | 0·50 | 45·70 |
| 1872 | 0·50 | 0·40 | ... | ... | 0·50 | 3·80 | 12·10 | 15·80 | 1·80 | ... | ... | ... | 34·90 |
| 1873 | 0·20 | ... | ... | ... | 0·20 | 0·80 | 13·40 | 17·90 | 11·60 | ... | ... | ... | 44·10 |
| 1874 | ... | ... | ... | ... | ... | 3·00 | 7·90 | 18·00 | 2·30 | ... | ... | ... | 31·20 |
| 1875 | ... | 0·90 | ... | ... | ... | 2·50 | 6·70 | 6·10 | 8·80 | ... | ... | ... | 25·00 |
| 1876 | ... | ... | ... | ... | ... | 5·60 | 21·70 | 5·00 | 5·40 | ... | ... | ... | 37·70 |
| 1877 | 0·40 | 0·90 | 0·30 | 0·50 | 0·40 | 1·70 | 0·50 | 2·30 | 5·40 | 2·30 | ... | 1·10 | 15·80 |
| 1878 | 1·70 | ... | ... | 0·50 | 0·60 | 1·70 | 5·00 | 8·20 | 7·60 | ... | ... | ... | 25·30 |
| 1879 | 0·40 | ... | ... | ... | ... | 2·90 | 16·76 | 17·10 | 9·17 | 0·91 | ... | ... | 47·24 |
| 1880 | ... | ... | ... | ... | 0·10 | 1·51 | 11·81 | 2·01 | 3·76 | 0·34 | 0·53 | 0·26 | 20·32 |
| 1881 | ... | 0·46 | 1·64 | ... | ... | 5·58 | 16·52 | 28·28 | 0·57 | 0·80 | ... | ... | 53·85 |
| 1882 | ... | 0·22 | ... | 0·18 | 0·64 | 10·45 | 23·10 | 9·48 | 3·62 | 0·03 | ... | ... | 47·72 |
| 1883 | 2·02 | ... | 0·30 | ... | 1·07 | 3·32 | 7·13 | 1·49 | 2·88 | 0·45 | ... | ... | 18·66 |
| Mean | 0·56 | 0·21 | 0·41 | 0·13 | 0·24 | 4·02 | 13·63 | 10·01 | 5·11 | 0·62 | 0·02 | 0·12 | 35·08 |
| 1884 | 0·37 | 0·09 | ... | ... | 0·03 | 1·72 | 11·43 | 22·94 | 13·67 | 1·37 | ... | ... | 51·62 |
| 1885 | 0·19 | ... | 0·20 | 0·28 | 0·45 | 6·79 | 10·31 | 13·76 | 0·99 | 0·46 | ... | 2·47 | 35·90 |
| 1886 | 0·25 | ... | 0·66 | ... | 0·79 | 4·15 | 18·11 | 6·07 | 2·03 | 4·10 | ... | 0·56 | 36·72 |
| Mean | 0·52 | 0·19 | 0·39 | 0·13 | 0·26 | 4·04 | 13·59 | 10·48 | 5·16 | 0·77 | 0·02 | 0·22 | 35·77 |

No. 96. LALITPUR.

Latitude N. 24° 42′. Longitude E. 78° 28′. Elevation 860 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. V.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1860 | ? | ? | ? | ? | ? | ... | 14·40 | 8·50 | 9·50 | ... | ... | ... | ? |
| 1861 | 0·70 | ... | ... | ... | ... | 8·00 | 12·30 | 10·60 | 19·30 | ... | ... | ... | 50·90 |
| 1862 | ... | ... | ... | 0·30 | ... | 3·60 | 13·10 | 14·60 | 8·70 | 4·80 | ... | ... | 45·10 |
| 1863 | 0·20 | ... | 0·20 | ... | 0·50 | 8·70 | 18·20 | 8·40 | 4·90 | ... | ... | ... | 41·10 |

LALITPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1864 | 1·10 | 1·20 | ... | ... | 1·20 | 3·20 | 2·00 | 11·00 | 1·00 | ... | 0·40 | ... | 21·10 |
| 1865 | 1·00 | ... | 1·60 | 0·60 | 4·90 | 1·10 | 14·90 | 15·90 | 7·00 | 0·30 | ... | ... | 47·30 |
| 1866 | 0·10 | ... | ... | 0·40 | ... | 16·20 | 6·80 | 8·20 | 1·20 | ... | ... | ... | 32·90 |
| 1867 | 0·50 | ... | ... | 0·30 | 0·10 | 8·70 | 23·20 | 13·70 | 8·00 | 5·50 | ... | 0·20 | 60·20 |
| 1868 | 0·70 | 0·10 | 0·90 | 0·10 | 0·10 | 1·10 | 6·90 | 1·20 | 2·70 | ... | ... | ... | 13·80 |
| 1869 | 0·30 | 0·30 | 0·50 | 0·10 | ... | 1·90 | 30·00 | 6·30 | 9·30 | 1·70 | ... | 0·50 | 50·90 |
| 1870 | 0·70 | ... | 2·20 | 0·50 | ... | 6·40 | 9·70 | 7·30 | 3·90 | 1·60 | ... | 0·10 | 32·40 |
| 1871 | 1·70 | 1·20 | ... | 0·30 | 2·00 | 13·70 | 12·50 | 13·40 | 6·20 | ... | ... | 0·20 | 51·20 |
| 1872 | 0·40 | ... | 0·40 | 0·40 | 0·10 | 1·20 | 5·30 | 11·10 | 4·30 | ... | ... | ... | 23·20 |
| 1873 | 0·60 | ... | 0·10 | ... | ... | 0·90 | 21·70 | 19·10 | 7·70 | ... | ... | ... | 60·10 |
| 1874 | 0·10 | ... | ... | ... | 0·40 | 6·00 | 19·20 | 16·60 | 1·40 | ... | ... | ... | 43·70 |
| 1875 | ... | 0·60 | ... | ... | 0·30 | 3·10 | 15·60 | 13·50 | 8·00 | ... | ... | ... | 41·10 |
| 1876 | ... | ... | 0·40 | ... | 0·10 | 1·00 | 27·50 | 4·70 | 9·90 | ... | ... | ... | 43·60 |
| 1877 | 0·60 | 1·20 | ... | ... | 0·30 | 6·10 | 1·80 | 4·80 | 0·80 | 1·90 | ... | 2·80 | 20·30 |
| 1878 | 2·50 | ... | ... | 0·30 | 1·80 | 1·30 | 5·90 | 10·00 | 4·60 | ... | ... | ... | 26·40 |
| 1879 | 0·20 | 0·50 | ... | ... | 0·10 | 2·90 | 6·90 | 25·60 | 6·00 | 2·30 | ... | ... | 44·50 |
| 1880 | ... | ... | ... | ... | ... | 0·60 | 6·30 | 2·70 | 5·00 | 1·50 | 1·20 | 0·30 | 17·60 |
| 1881 | ... | 0·20 | 1·20 | ... | ... | 5·00 | 8·30 | 21·30 | 1·60 | ... | ... | ... | 37·60 |
| 1882 | ... | 0·20 | ... | ... | 0·10 | 6·10 | 27·80 | 13·20 | 0·80 | ... | 0·21 | 0·16 | 48·57 |
| 1883 | 1·15 | ... | 0·07 | ... | 1·19 | 2·40 | 6·07 | 3·39 | 7·86 | 1·61 | ... | ... | 23·74 |
| Mean | 0·55 | 0·24 | 0·33 | 0·14 | 0·57 | 4·55 | 13·18 | 11·05 | 6·24 | 0·88 | 0·08 | 0·18 | 37·99 |
| 1884 | 0·53 | ... | ... | ... | ... | 5·69 | 15·62 | 21·06 | 10·07 | 2·54 | ... | 0·10 | 55·61 |
| 1885 | 0·43 | ... | ... | 0·28 | 0·86 | 7·99 | 21·49 | 22·05 | 3·68 | 1·09 | 0·26 | 2·68 | 60·81 |
| 1886 | 0·47 | 0·07 | 0·09 | 0·30 | 2·12 | 5·13 | 12·42 | 8·22 | 0·41 | 2·69 | ... | 2·34 | 34·26 |
| Mean | 0·54 | 0·21 | 0·29 | 0·15 | 0·62 | 4·74 | 13·55 | 11·72 | 6·07 | 1·02 | 0·08 | 0·35 | 39·34 |

No. 97. BASTI.

Latitude N. 26° 49′. Longitude E. 82° 48′. Elevation 291 feet.

Administration: N.-W. Provinces and Oudh. Rainfall Province No. III.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1866 | ? | ? | ? | ? | ? | 3·80 | 17·30 | 8·70 | 9·10 | ... | ... | ... | ? |
| 1867 | 0·60 | 2·30 | ... | 0·90 | 2·00 | 7·40 | 17·60 | 17·60 | 6·30 | 1·90 | ... | ... | 56·60 |
| 1868 | 0·80 | 0·90 | 0·10 | 0·40 | 1·40 | 9·80 | 14·80 | 13·40 | 3·80 | 0·70 | ... | ... | 46·10 |
| 1869 | ... | ... | 0·30 | ... | ... | 3·70 | 14·80 | 14·10 | 20·90 | 11·70 | ... | 0·30 | 65·80 |
| 1870 | ... | 0·30 | 0·30 | ... | 1·60 | 10·60 | 21·40 | 11·10 | 10·60 | 1·50 | ... | ... | 57·40 |
| 1871 | 0·20 | ... | ... | ... | 3·20 | 4·70 | 24·90 | 20·10 | 16·20 | ... | ... | 1·10 | 70·40 |
| 1872 | 1·50 | 0·60 | ... | 0·40 | 0·50 | 3·70 | 26·60 | 11·20 | 9·40 | ... | ... | ... | 53·90 |
| 1873 | 0·10 | ... | 1·40 | ... | 0·10 | 2·90 | 10·20 | 3·30 | 3·20 | ... | ... | ... | 21·20 |
| 1874 | 0·10 | 1·60 | 0·10 | ... | 2·80 | 14·70 | 13·10 | 9·60 | 13·30 | 0·50 | ... | ... | 55·80 |
| 1875 | 0·80 | 0·50 | ... | ... | 1·30 | 7·00 | 10·40 | 13·40 | 6·10 | ... | ... | 0·10 | 39·60 |
| 1876 | 0·30 | ... | 0·10 | 0·70 | 0·20 | 1·30 | 15·10 | 9·00 | 8·00 | 4·20 | ... | ... | 38·90 |
| 1877 | 4·00 | 0·70 | 0·30 | 0·60 | 0·10 | 2·00 | 2·70 | 3·80 | 2·50 | 3·90 | ... | 0·50 | 21·10 |

BASTI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1878 | 1·30 | 0·40 | 0·10 | 1·00 | 3·30 | 2·60 | 4·30 | 9·70 | 14·20 | 0·30 | ... | ... | 37·20 |
| 1879 | ... | ... | ... | ... | 0·60 | 11·20 | 17·50 | 10·60 | 9·00 | 7·30 | ... | ... | 56·20 |
| 1880 | ... | 1·20 | ... | ... | 3·60 | 0·10 | 19·50 | 5·60 | 6·90 | ... | 0·20 | ... | 37·10 |
| 1881 | ... | ... | 1·30 | ... | 1·20 | 13·40 | 3·80 | 5·70 | 2·50 | 2·10 | ... | ... | 30·00 |
| 1882 | ... | ... | ... | ... | 1·50 | 6·80 | 5·30 | 24·70 | 1·80 | 5·84 | 0·01 | ... | 45·95 |
| 1883 | 3·15 | ... | 0·11 | ... | 0·10 | 6·82 | 13·44 | 4·26 | 4·76 | ... | ... | ... | 32·64 |
| Mean | **0·76** | **0·50** | **0·24** | **0·24** | **1·38** | **6·25** | **14·04** | **10·88** | **8·25** | **2·22** | **0·01** | **0·11** | **44·88** |
| 1884 | ... | 0·18 | ... | ... | 0·33 | 9·77 | 6·75 | 13·96 | 9·60 | 2·84 | ... | ... | 43·43 |
| 1885 | 0·86 | ... | 0·47 | ... | ... | 6·05 | 16·81 | 12·41 | 11·12 | 0·52 | ... | 0·91 | 49·15 |
| 1886 | 0·09 | ... | 0·51 | ... | 1·51 | 7·19 | 11·92 | 11·80 | 8·40 | 6·92 | ... | 0·20 | 48·54 |
| Mean | **0·69** | **0·43** | **0·25** | **0·20** | **1·26** | **6·45** | **13·72** | **11·14** | **8·46** | **2·39** | **0·01** | **0·15** | **45·15** |

No. 98. GORAKHPUR.

Latitude N. 26° 46′. Longitude E. 83° 18′. Elevation 256 feet.

Administration: N.-W. Provinces and Oudh. Rainfall Province No. III.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | 1·81 | 5·21 | 10·09 | 6·13 | 5·00 | ... | ... | ... | ? |
| 1845 | ... | 0·33 | ... | ... | 0·50 | 4·02 | 12·88 | 8·21 | 0·75 | ... | ... | 0·30 | 26·99 |
| 1846 | ... | 1·90 | 0·56 | ... | 1·04 | 7·53 | 12·12 | 13·45 | 20·23 | ... | ... | ... | 56·83 |
| 1847 | 0·95 | ... | ... | 0·25 | 4·25 | 3·70 | 20·95 | 20·30 | 9·35 | 17·14 | 4·10 | ... | 80·99 |
| 1848 | ... | 0·05 | 0·02 | ... | 1·63 | 6·19 | 9·48 | 9·66 | 5·15 | 0·60 | ... | ... | 32·78 |
| 1849 | 0·20 | 0·25 | 0·25 | ... | 0·40 | 8·77 | 5·24 | 12·84 | 3·80 | 1·45 | 0·55 | ... | 33·75 |
| 1850 | 1·07 | 0·70 | 0·60 | ... | 1·65 | 20·85 | 10·37 | 9·61 | 11·83 | 1·25 | 0·15 | ... | 58·08 |
| 1851 | 2·71 | 0·78 | 0·33 | 0·10 | 0·75 | 8·94 | 9·56 | 4·10 | 6·02 | 6·84 | ... | ... | 40·13 |
| 1852 | 0·13 | ... | 2·31 | 0·35 | 5·34 | 8·45 | 16·92 | 7·71 | 6·35 | ... | ... | ... | 47·56 |
| 1853 | 2·35 | 0·65 | ... | | 0·03 | 7·03 | 23·01 | 9·07 | 13·05 | 5·00 | ... | ... | 60·19 |
| 1854 | 0·20 | 0·20 | ... | ... | 1·02 | 10·43 | 9·25 | 23·96 | 21·11 | 2·79 | 0·58 | ... | 69·54 |
| 1855 | ... | 1·20 | 1·45 | 0·87 | ... | 8·45 | 10·81 | 6·78 | 14·34 | 0·06 | ? | ? | 43·96? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 1·30 | 21·10 | 7·00 | 7·00 | 10·00 | ... | ... | ? |
| 1861 | ... | ... | ... | ... | 2·60 | 19·70 | 15·80 | 13·20 | 6·80 | 6·20 | ... | ... | 64·30 |
| 1862 | 1·00 | ... | 0·80 | ... | 4·30 | 3·60 | 14·40 | 10·20 | 9·60 | 1·10 | ... | ... | 45·00 |
| 1863 | 1·90 | ... | ... | ... | 1·40 | 8·00 | 12·00 | 23·40 | 5·40 | 3·80 | ... | ... | 55·90 |
| 1864 | 0·20 | 0·40 | ... | ... | 0·70 | 1·40 | 3·80 | 12·60 | 5·80 | ... | 0·20 | ... | 25·10 |
| 1865 | 0·50 | 2·70 | 2·00 | 1·80 | 4·20 | 7·00 | 14·20 | 14·00 | 5·00 | ... | ... | ... | 51·40 |
| 1866 | 1·40 | 2·00 | ... | 2·60 | ... | 7·20 | 16·90 | 7·20 | 17·50 | 0·60 | ... | ... | 55·40 |
| 1867 | 0·90 | 2·10 | 1·70 | 0·30 | ... | 12·30 | 18·50 | 9·20 | 9·60 | 5·00 | ... | ... | 59·60 |
| 1868 | 0·40 | 2·10 | ... | 0·20 | 0·60 | 4·10 | 9·50 | 9·00 | 1·30 | ... | ... | 0·40 | 26·60 |
| 1869 | ... | ... | 0·10 | ... | 0·20 | 2·50 | 5·70 | 11·60 | 9·90 | 10·90 | ... | ... | 40·90 |
| 1870 | ... | 0·20 | 0·40 | 0·70 | 1·40 | 4·80 | 20·30 | 16·40 | 6·80 | 3·20 | ... | ... | 54·20 |
| 1871 | ... | 0·50 | 0·10 | 0·10 | 5·90 | 8·20 | 20·50 | 19·40 | 17·40 | ... | ... | 0·40 | 72·50 |

GORAKHPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | 2·40 | 0·40 | 0·50 | ... | 2·20 | 4·00 | 23·40 | 16·40 | 19·50 | ... | ... | ... | 68·80 |
| 1873 | ... | ... | 1·10 | ... | ... | 8·90 | 11·90 | 14·50 | 2·40 | ... | ... | 0·20 | 39·00 |
| 1874 | 0·10 | 0·70 | ... | ... | 0·30 | 12·10 | 22·50 | 11·70 | 9·80 | 3·60 | ... | ... | 60·80 |
| 1875 | 0·30 | ... | ... | ... | 0·20 | 8·00 | 9·30 | 15·50 | 3·50 | ... | ... | 0·20 | 37·00 |
| 1876 | 0·60 | ... | 0·20 | 1·30 | 0·60 | 2·00 | 5·20 | 10·10 | 16·60 | 3·90 | ... | ... | 40·50 |
| 1877 | 2·90 | 1·10 | ... | 0·60 | 0·50 | 2·60 | 4·80 | 4·40 | 3·00 | 3·00 | ... | 1·40 | 24·30 |
| 1878 | 1·00 | 0·50 | ... | 1·30 | 1·70 | 0·50 | 8·80 | 6·40 | 9·80 | ... | ... | ... | 30·00 |
| 1879 | ... | 0·09 | ... | ... | 0·15 | 8·79 | 27·35 | 13·19 | 17·94 | 9·59 | 0·05 | 0·17 | 77·32 |
| 1880 | ... | 1·76 | ... | ... | 1·35 | 5·99 | 23·49 | 8·07 | 2·49 | 0·03 | 0·38 | 0·17 | 43·73 |
| 1881 | ... | 0·01 | 0·37 | ... | 1·12 | 19·33 | 7·36 | 11·47 | 6·46 | 5·46 | ... | ... | 51·58 |
| 1882 | ... | 0·21 | 0·04 | ... | 4·22 | 12·34 | 3·53 | 24·96 | 1·55 | 1·13 | 0·25 | ... | 48·23 |
| 1883 | 3·55 | 0·10 | 0·28 | 0·76 | 0·25 | 10·89 | 7·96 | 4·81 | 1·48 | ... | ... | ... | 30·08 |
| Mean | 0·73 | 0·59 | 0·39 | 0·33 | 1·49 | 7·64 | 13·30 | 11·85 | 8·71 | 2·85 | 0·18 | 0·09 | 48·15 |
| 1884 | ... | 0·02 | ... | 0·02 | 0·80 | 10·86 | 5·52 | 16·97 | 10·15 | 4·34 | ... | ... | 48·68 |
| 1885 | 0·45 | ... | 0·25 | ... | 1·26 | 4·09 | 20·19 | 9·78 | 15·48 | 0·86 | ... | 1·03 | 53·39 |
| 1886 | 0·22 | 0·11 | 1·43 | ... | 3·00 | 9·56 | 14·22 | 8·65 | 5·07 | 9·73 | ... | 0·99 | 52·98 |
| Mean | 0·69 | 0·54 | 0·40 | 0·30 | 1·51 | 7·68 | 13·31 | 11·84 | 8·83 | 3·01 | 0·16 | 0·14 | 48·41 |

No. 99. AZAMGARH.

Latitude N. 26° 3′. Longitude E. 83° 13′. Elevation 254 feet.

Administration: N.-W. Provinces and Oudh. Rainfall Province No. III.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | ... | ... | 13·40 | 9·76 | 2·67 | ... | ... | 0·09 | ? |
| 1845 | ... | 1·88 | 0·61 | ... | 1·02 | 11·40 | 22·45 | 7·70 | ... | ... | ... | ... | 45·06 |
| 1846 | ... | 0·58 | 0·30 | ... | 0·93 | 4·77 | 7·09 | 11·30 | 10·70 | ... | ... | ... | 35·67 |
| 1847 | 1·03 | 0·15 | ... | 0·23 | 1·00 | 3·90 | 8·38 | 15·10 | 11·03 | 10·82 | 0·60 | ... | 52·24 |
| 1848 | ... | ... | ... | ... | 1·37 | 8·49 | 3·41 | 7·14 | 4·08 | 0·39 | ... | 0·12 | 25·00 |
| 1849 | 0·58 | ... | ... | 0·12 | 0·26 | 3·75 | 4·32 | 8·83 | 6·74 | 3·26 | ... | ... | 27·86 |
| 1850 | 0·45 | 0·56 | ... | ... | 0·12 | 9·50 | 5·09 | 7·68 | 12·66 | 0·24 | 0·42 | ... | 36·72 |
| 1851 | 3·74 | 1·42 | 0·22 | 0·15 | ... | 4·47 | 11·16 | 3·03 | 8·21 | 7·32 | ... | ... | 39·72 |
| 1852 | ... | ... | 2·01 | ... | 7·43 | 23·97 | 9·83 | 9·83 | 6·62 | ... | ... | ... | 59·69 |
| 1853 | 2·86 | 1·14 | ... | ... | ... | 5·76 | 12·06 | 8·27 | 3·69 | 2·91 | ... | ... | 36·69 |
| 1854 | ... | 0·17 | ... | ... | 0·66 | 7·33 | 4·91 | 15·44 | 12·42 | 2·54 | 1·37 | ... | 44·84 |
| 1855 | 0·02 | 0·56 | 1·68 | 1·05 | ... | 2·89 | 12·83 | 3·64 | 15·16 | ... | ? | ? | 37·83? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 0·10 | 12·80 | 2·90 | 2·70 | 9·40 | ... | ... | ? |
| 1861 | 0·10 | ... | ... | ... | ... | 18·50 | 14·60 | 3·99 | 9·90 | 4·80 | ... | ... | 51·80 |
| 1862 | 0·30 | ... | 0·70 | ... | 1·30 | 0·10 | 19·70 | 9·40 | 5·40 | 1·30 | ... | ... | 38·20 |
| 1863 | 0·10 | ... | ... | 0·50 | 0·30 | 2·70 | 10·50 | 10·20 | 6·10 | 2·20 | ... | ... | 32·60 |
| 1864 | ... | 0·90 | ... | ... | 0·40 | 1·20 | 4·90 | 3·90 | 5·70 | ... | 0·30 | ... | 17·30 |
| 1865 | ... | ... | 2·70 | ... | 2·00 | 2·20 | 9·40 | 15·70 | 4·70 | ... | ... | ... | 36·70 |
| 1866 | 0·50 | 0·80 | ... | 1·90 | ... | 1·00 | 12·20 | 8·20 | 7·00 | ... | ... | ... | 31·60 |

AZAMGARH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ... | 2·30 | ... | 0·80 | 3·60 | 8·40 | 13·40 | 10·90 | 10·90 | 3·50 | ... | 0·10 | 53·90 |
| 1868 | 0·30 | 1·40 | ... | 0·20 | 2·10 | 4·30 | 4·70 | 5·50 | 4·90 | 0·50 | ... | ... | 23·90 |
| 1869 | ... | ... | 0·40 | ... | ... | 2·00 | 9·40 | 11·30 | 8·10 | 7·70 | ... | ... | 38·90 |
| 1870 | ... | ... | 0·50 | 0·40 | ... | 4·80 | 15·80 | 12·80 | 8·70 | 10·20 | ... | ... | 53·20 |
| 1871 | ... | 0·60 | 0·10 | ... | 2·00 | 4·20 | 20·80 | 14·30 | 21·80 | ... | ... | 1·20 | 65·00 |
| 1872 | 2·10 | 0·10 | ... | 0·10 | ... | 6·50 | 11·70 | 23·80 | 8·30 | ... | ... | ... | 52·60 |
| 1873 | 0·20 | ... | 0·90 | ... | 0·30 | 3·90 | 16·60 | 6·20 | 2·80 | ... | ... | 0·20 | 31·10 |
| 1874 | 0·10 | 0·30 | 0·10 | ... | 0·10 | 9·60 | 11·80 | 12·90 | 11·70 | 2·10 | ... | ... | 48·70 |
| 1875 | 1·20 | 0·10 | ... | ... | 1·10 | 6·90 | 10·80 | 20·30 | 11·10 | ... | ... | ... | 51·50 |
| 1876 | 0·10 | ... | ... | ... | 1·00 | 1·40 | 5·80 | 9·00 | 5·50 | 3·50 | ... | ... | 26·30 |
| 1877 | 1·20 | 1·40 | 0·30 | 0·30 | 0·20 | 1·00 | 5·60 | 4·80 | 1·20 | 2·50 | ... | 1·10 | 19·60 |
| 1878 | 1·60 | 0·20 | ... | 0·20 | 1·70 | 3·30 | 12·60 | 10·50 | 11·80 | ... | 0·10 | ... | 42·00 |
| 1879 | ... | ... | ... | ... | ... | 6·30 | 13·20 | 12·40 | 17·90 | 3·90 | ... | ... | 53·70 |
| 1880 | ... | 1·60 | ... | ... | 1·90 | 0·20 | 26·90 | 4·50 | 5·70 | 0·90 | 0·30 | 0·90 | 42 90 |
| 1881 | ... | ... | 1·10 | ... | 2·10 | 5·90 | 8·70 | 18·10 | 4·70 | 5·30 | ... | ... | 45·90 |
| 1882 | ... | 0·20 | ... | ... | 0·90 | 2·90 | 6·30 | 15·13 | 2·12 | 1·91 | 0·25 | ... | 29·71 |
| 1883 | 3·08 | 0·12 | 0·12 | ... | 0·24 | 6·36 | 12·74 | 3·40 | 3·57 | ... | ... | ... | 29·63 |
| Mean | **0·58** | **0·48** | **0·35** | **0·18** | **0·97** | **5·28** | **11·27** | **9·94** | **7·67** | **2·42** | **0·10** | **0·11** | **39·35** |
| 1884 | ... | ... | 0·08 | ... | 0·90 | 3·22 | 4·73 | 18·46 | 8·18 | 2·42 | ... | ... | 37·99 |
| 1885 | 0·42 | ... | ... | ... | ... | 4·00 | 9·41 | 18·19 | 12·14 | ... | ... | 0·44 | 44·60 |
| 1886 | ... | ... | 0·91 | ... | 0·30 | 8·89 | 20·27 | 12·02 | 5·83 | 5·24 | ... | 1·40 | 54·86 |
| Mean | **0·54** | **0·44** | **0·34** | **0·16** | **0·93** | **5·28** | **11·29** | **10·42** | **7·75** | **2·43** | **0·09** | **0·15** | **39·82** |

No. 100. JAUNPUR.

Latitude N. 25°44′. Longitude E. 82°44′. Elevation 250 feet.

Administration: N.-W. Provinces and Oudh. Rainfall Province No. III.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | P | P | P | P | ... | ... | 5·27 | 14·01 | 5·00 | ... | ... | ... | P |
| 1845 | } Doubtful. | | | | | | | | | | | | |
| 1846 | | | | | | | | | | | | | |
| 1847 | 0·10 | ... | ... | ... | ... | 0·95 | 9·32 | 13·50 | 2·25 | 7·35 | 1·57 | ... | 35·04 |
| 1848 | ... | ... | ... | ... | 1·80 | 6·05 | 4·95 | 13·22 | 1·35 | ... | ... | 0·52 | 27·89 |
| 1849 | 0·22 | ... | ... | ... | ... | 4·22 | 2·28 | 11·63 | 7·62 | 7·31 | 0·70 | ... | 33·98 |
| 1850 | 1·27 | 0·70 | ... | 0·12 | ... | 7·40 | 8·43 | 10·71 | 2·49 | ... | ... | ... | 31·12 |
| 1851 | 1·92 | 2·07 | ... | ... | ... | 1·80 | 5·03 | 6·52 | 9·09 | 7·92 | ... | ... | 34·35 |
| 1852 | 0·02 | ... | 0·24 | 0·01 | 0·63 | 3·12 | 15·17 | 1·46 | 2·72 | ... | ... | ... | 23·37 |
| 1853 | 2·05 | ... | ... | 0·12 | ... | 0·19 | 12·05 | 8·08 | 3·02 | 2·08 | ... | ... | 27·59 |
| 1854 | ... | 0·05 | ... | ... | 0·66 | 10·79 | 5·80 | 14·20 | 9·21 | 3·65 | 1·27 | P | 45·63 P |
| 1855 | ... | 0·18 | 1·98 | 0·70 | ... | 3·83 | 20·08 | 1·63 | 12·91 | ... | P | P | 41·31 P |
| 1856 | } Not on record. | | | | | | | | | | | | |
| to | | | | | | | | | | | | | |
| 1860 | | | | | | | | | | | | | |
| 1861 | P | P | P | P | P | 8·50 | 12·20 | 9·30 | 6·50 | 4·90 | ... | 0·10 | P |

JAUNPUR.—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | 0·40 | ... | 1·20 | ... | 0·70 | 0·90 | 24·90 | 24·60 | 4·90 | 2·90 | ... | ... | 60·50 |
| 1863 | ... | ... | ... | ... | ... | 3·50 | 18·20 | 15·50 | 16·40 | 4·10 | ... | ... | 57·70 |
| 1864 | ... | 0·70 | ... | ... | 0·60 | 0·30 | 4·40 | 7·00 | 5·00 | ... | ... | ... | 18·00 |
| 1865 | 0·70 | ... | 1·40 | 0·70 | 2·10 | 2·30 | 18·50 | 7·40 | 6·80 | ... | ... | ... | 39·90 |
| 1866 | 0·90 | 1·00 | ... | ... | ... | 2·10 | 12·50 | 12·20 | 5·80 | ... | ... | ... | 34·50 |
| 1867 | 1·30 | 2·00 | ... | ... | 2·40 | 9·00 | 9·50 | 6·80 | 20·20 | 2·60 | ... | ... | 53·80 |
| 1868 | 0·50 | 0·60 | 0·80 | 0·80 | 3·60 | 9·80 | 14·00 | 7·20 | 7·50 | 1·20 | ... | ... | 46·00 |
| 1869 | ... | ... | 1·40 | ... | ... | 4·80 | 12·80 | 7·20 | 10·70 | 10·20 | ... | ... | 47·10 |
| 1870 | ... | ... | 0·60 | 0·30 | 0·20 | 5·40 | 14·60 | 15·10 | 14·90 | 11·30 | ... | ... | 62·40 |
| 1871 | ... | 0·50 | ... | 1·00 | 1·20 | 9·90 | 20·30 | 19·70 | 24·00 | ... | ... | 1·60 | 78·20 |
| 1872 | 4·00 | ... | 0·70 | ... | ... | 5·70 | 5·50 | 11·00 | 5·30 | 0·80 | ... | ... | 33·00 |
| 1873 | 0·20 | 0·20 | 0·40 | ... | ... | 0·30 | 14·10 | 10·40 | 1·30 | ... | ... | ... | 26·90 |
| 1874 | 0·10 | 0·30 | 0·70 | ... | 0·50 | 19·20 | 13·20 | 14·30 | 7·60 | 3·80 | ... | ... | 59·70 |
| 1875 | 0·50 | 0·30 | ... | ... | 1·80 | 5·50 | 7·30 | 15·70 | 11·20 | 1·70 | ... | ... | 44·00 |
| 1876 | ... | ... | ... | ... | ... | 0·60 | 12·00 | 5·60 | 10·20 | 6·60 | ... | ... | 35·00 |
| 1877 | 2·00 | 1·90 | 0·10 | 0·20 | 0·30 | 1·10 | 10·80 | 7·20 | 4·00 | 5·80 | ... | 0·40 | 33·80 |
| 1878 | 2·60 | 0·20 | ... | 0·40 | 3·80 | 3·30 | 7·80 | 21·40 | 9·30 | 0·30 | 0·40 | ... | 49·50 |
| 1879 | ... | ... | ... | ... | ... | 4·50 | 19·80 | 19·50 | 18·40 | 2·60 | ... | ... | 64·80 |
| 1880 | ... | 1·80 | ... | ... | 0·50 | 0·10 | 16·30 | 3·70 | 3·90 | 5·30 | 0·50 | ... | 32·10 |
| 1881 | ... | ... | 0·40 | ... | 6·60 | 2·50 | 14·80 | 17·90 | 2·30 | 1·60 | ... | ... | 46·10 |
| 1882 | ... | 0·30 | ... | ... | 1·00 | 6·20 | 7·30 | 17·26 | 1·62 | 5·37 | 0·54 | ... | 39·59 |
| 1883 | 3·02 | 0·11 | 0·38 | ... | 0·18 | 5·36 | 11·77 | 3·58 | 7·58 | ... | ... | ... | 31·98 |
| Mean | 0·70 | 0·42 | 0·33 | 0·14 | 0·89 | 4·52 | 11·85 | 11·35 | 7·91 | 3·01 | 0·16 | 0·08 | 41·36 |
| 1884 | ... | ... | ... | ... | 0·66 | 6·16 | 6·83 | 13·96 | 11·11 | 0·42 | ... | ... | 39·14 |
| 1885 | 1·29 | ... | ... | 0·63 | 0·48 | 10·92 | 7·32 | 13·89 | 5·81 | ... | ... | 1·12 | 41·46 |
| 1886 | ... | ... | 0·80 | ... | 0·70 | 11·98 | 15·63 | 11·88 | 11·80 | 8·04 | ... | 1·16 | 61·99 |
| Mean | 0·68 | 0·38 | 0·33 | 0·15 | 0·87 | 4·95 | 11·69 | 11·51 | 8·05 | 3·00 | 0·14 | 0·14 | 41·89 |

No. 101. GHAZIPUR.

Latitude N. 25° 35′. Longitude E. 83° 39′. Elevation 227 feet.

Administration : N.-W. Provinces and Oudh. Rainfall Province No. III.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | 1·51 | 4·42 | 11·25 | 13·89 | 5·00 | ... | ... | ... | ? |
| 1845 | ... | 2·29 | ... | ... | ... | 4·86 | 13·93 | 13·46 | 1·86 | ... | ... | ... | 36·40 |
| 1846 | ... | 1·37 | 0·40 | ... | ... | 3·00 | 9·98 | 9·44 | 8·71 | ... | ... | ... | 32·90 |
| 1847 | 1·70 | 0·40 | ... | ... | ... | 1·01 | 8·34 | 13·16 | 5·26 | 8·53 | 4·65 | ... | 43·05 |
| 1848 | ... | ... | ... | ... | 2·10 | 14·53 | 6·49 | 0·88 | 0·28 | 0·37 | ... | 0·35 | 25·00 |
| 1849 | 0·91 | ... | ... | ... | 0·50 | 4·40 | 1·38 | 13·46 | 5·19 | 6·01 | 1·09 | ... | 32·94 |
| 1850 | 1·76 | 2·42 | ... | ... | ... | 11·21 | 9·05 | 6·11 | 11·45 | 3·44 | ... | ... | 45·44 |
| 1851 | 1·10 | 0·70 | 0·45 | ... | ... | 6·77 | 5·79 | 5·21 | 5·02 | 5·38 | ... | ... | 30·42 |
| 1852 | ... | ... | 0·16 | ... | 0·12 | 0·57 | 15·70 | 6·04 | 2·05 | ... | ... | ... | 24·64 |
| 1853 | 5·01 | ... | ... | ... | ... | 2·00 | 16·01 | 1·05 | 4·05 | 1·00 | ... | ... | 29·12 |
| 1854 | ... | 0·03 | ... | ... | 0·73 | 4·93 | 5·26 | 14·38 | 13·57 | 1·52 | 2·40 | ... | 42·82 |

GHAZIPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct.. | Nov. | Dec. | Total. |
| 1855 | ... | 0·69 | 1·02 | 0·62 | 0·92 | 2·75 | 14·48 | 6·44 | 14·04 | 0·02 | P | P | 40.08 P |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | P | P | P | P | P | 0·10 | 10·40 | 4·00 | 8·80 | 3·60 | ... | ... | P |
| 1861 | 0·10 | ... | 0·10 | ... | 0·40 | 10·60 | 11·30 | 7·50 | 8·30 | 16·10 | ... | 0·20 | 54·60 |
| 1862 | 0·60 | ... | 2·10 | ... | 1·80 | 3·70 | 18·70 | 13·10 | 9·70 | 3·10 | ... | ... | 52·80 |
| 1863 | 1·10 | ... | ... | ... | ... | 6·50 | 11·60 | 16·50 | 13·50 | 3·00 | ... | ... | 52·20 |
| 1864 | ... | 0·70 | 0·10 | ... | 0·70 | 1·10 | 3·70 | 3·10 | 3·80 | ... | 0·30 | ... | 13·50 |
| 1865 | 0·80 | 0·80 | 0·90 | 0·40 | 3·20 | 2·40 | 19·30 | 18·80 | 2·60 | ... | ... | ... | 49·20 |
| 1866 | 1·20 | 1·30 | ... | 0·60 | ... | 3·90 | 13·00 | 10·90 | 13·00 | ... | ... | ... | 43·90 |
| 1867 | 0·70 | 3·00 | 0·30 | ... | 3·70 | 9·30 | 14·80 | 9·10 | 5·60 | 4·10 | ... | ... | 50·60 |
| 1868 | 0·90 | 0·90 | 0·10 | 0·30 | 0·90 | 2·90 | 10·20 | 5·90 | 5·50 | ... | ... | ... | 27·60 |
| 1869 | ... | ... | 0·40 | ... | ... | 2·00 | 12·50 | 3·00 | 12·40 | 9·10 | ... | ... | 39·40 |
| 1870 | ... | ... | 0·40 | 0·30 | 0·90 | 4·20 | 20·10 | 8·00 | 8·20 | 11·20 | ... | ... | 53·30 |
| 1871 | ... | ... | 1·60 | 0·20 | 2·80 | 6·10 | 10·20 | 10·60 | 17·10 | ... | ... | 0·90 | 49·50 |
| 1872 | 1·90 | 0·30 | ... | 0·10 | 0·40 | 3·00 | 12·50 | 9·40 | 4·10 | 0·20 | ... | ... | 31·90 |
| 1873 | ... | 0·10 | 1·80 | 0·60 | 0·60 | ... | 9·60 | 12·30 | 2·60 | ... | ... | 0·20 | 27·80 |
| 1874 | 0·10 | 0·70 | 0·40 | ... | ... | 9·00 | 7·40 | 16·50 | 10·40 | 10·00 | 0·30 | 0·20 | 55·00 |
| 1875 | 1·80 | ... | ... | ... | 1·90 | 4·80 | 12·50 | 11·60 | 7·30 | 0·10 | ... | ... | 40·00 |
| 1876 | ... | ... | ... | ... | 0·10 | 1·00 | 6·90 | 6·20 | 9·70 | 3·50 | ... | ... | 27·40 |
| 1877 | 1·60 | 1·90 | 0·20 | 0·40 | 0·10 | 1·30 | 2·50 | 5·30 | 0·90 | 1·40 | ... | 0·75 | 16·35 |
| 1878 | 2·30 | ... | ... | 1·15 | 2·00 | 2·50 | 9·40 | 9·00 | 5·45 | ... | 0·70 | ... | 32·50 |
| 1879 | ... | 0·35 | ... | ... | ... | 6·90 | 13·30 | 13·90 | 16·80 | 1·80 | ... | ... | 53·05 |
| 1880 | ... | 1·90 | ... | ... | 0·70 | 0·80 | 24·50 | 4·60 | 2·40 | 1·70 | 0·80 | ... | 37·40 |
| 1881 | 0·10 | ... | 0·90 | ... | 0·40 | 6·70 | 6·10 | 12·90 | 2·80 | 3·00 | ... | ... | 32·90 |
| 1882 | ... | 0·20 | ... | ... | 0·30 | 2·50 | 4·30 | 9·30 | 3·40 | 2·20 | 0·80 | ... | 23·00 |
| 1883 | 1·61 | 0·02 | ... | ... | 0·22 | 5·09 | 14·19 | 4·09 | 4·87 | 0·80 | ... | ... | 30·89 |
| Mean | 0·74 | 0·59 | 0·33 | 0·14 | 0·75 | 4·36 | 11·02 | 9·14 | 7·10 | 2·81 | 0·32 | 0·07 | 37·37 |
| 1884 | ... | ... | ... | ... | 0·30 | 3.00 | 2·70 | 12·13 | 4·72 | 1·53 | ... | ... | 24·38 |
| 1885 | 0·83 | ... | ... | ... | 1·47 | 3·14 | 5·77 | 13·59 | 11·36 | ... | ... | 2·20 | 38·36 |
| 1886 | ... | ... | 0·30 | ... | 0·47 | 7·82 | 19·11 | 10·95 | 6·60 | 5·08 | ... | 0·70 | 51·03 |
| Mean | 0·71 | 0·54 | 0·31 | 0·13 | 0·75 | 4·38 | 10·88 | 9·38 | 7·14 | 2·76 | 0·29 | 0·14 | 37·41 |

No. 102. MIRZAPUR.

Latitude N. 25° 9′. Longitude E. 82° 37′. Elevation 283 feet.

Administration: N.-W. Provinces and Oudh. Rainfall Province No. III.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | P | P | P | P | 2·34 | 0·85 | 18·63 | 13·61 | 2·10 | ... | ... | ... | P |
| 1845 | 0·75 | 3·45 | 1·15 | 0·60 | ... | 4·40 | 10·30 | 16·07 | 0·42 | ... | ... | ... | 37·14 |
| 1846 | ... | 3·00 | 10·00 | ... | ... | 3·95 | 7·45 | 16·40 | 6·10 | 0·40 | ... | ... | 41·30 |

MIRZAPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1847 | 1·32 | 0·94 | 0·10 | ... | ... | 2·32 | 15·44 | 8·76 | 2·95 | 6·94 | 0·80 | ... | 39·57 |
| 1848 | ... | ... | ... | ... | 2·83 | 7·96 | 6·73 | 14·20 | 2·43 | 1·10 | ... | 0·14 | 35·39 |
| 1849 | 1·14 | 0·20 | 0·16 | ... | ... | 3·26 | 2·45 | 10·84 | 5·70 | 6·95 | 1·50 | ... | 32·20 |
| 1850 | 2·45 | 0·40 | ... | 0·02 | ... | 7·22 | 9·30 | 8·08 | 7·94 | 2·16 | ... | ... | 37·57 |
| 1851 | 1·94 | 1·20 | ... | ... | ... | 3·30 | 7·56 | 7·51 | 10·11 | 6·70 | ... | ... | 38·32 |
| 1852 | ... | ... | 0·79 | ... | 3·89 | 8·90 | 14·72 | 5·11 | 4·99 | ... | ... | ... | 38·40 |
| 1853 | 2·45 | 1·35 | ... | 0·35 | ... | 2·13 | 19·04 | 9·99 | 1·23 | 1·19 | ... | ... | 37·73 |
| 1854 | ... | 0·64 | ... | ... | 0·13 | 12·21 | 4·45 | 16·83 | 5·80 | 2·17 | 5·19 | ... | 47·42 |
| 1855 | 0·16 | 0·07 | 3·03 | 0·79 | ... | 4·10 | 22·01 | 2·18 | 13·40 | ... | ? | ? | 45·74? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 1·30 | 14·70 | 8·30 | 6·20 | 3·50 | ... | ... | ? |
| 1861 | ... | ... | 0·30 | ... | 0·70 | 5·30 | 23·60 | 17·90 | 12·40 | 11·50 | ... | ... | 71·70 |
| 1862 | 0·70 | ... | 1·90 | ... | 0·40 | 2·20 | 20·60 | 21·70 | 3·60 | 3·30 | ... | ... | 54·40 |
| 1863 | 0·60 | ... | ... | ... | ... | 7·00 | 15·60 | 11·80 | 8·60 | 4·40 | ... | ... | 48·00 |
| 1864 | 0·10 | 0·60 | ... | ... | 0·40 | 0·30 | 7·90 | 11·40 | 6·20 | ... | ... | ... | 26·90 |
| 1865 | 0·80 | 0·40 | 0·50 | ... | 1·60 | 1·10 | 16·40 | 8·80 | 2·50 | ... | ... | ... | 32·10 |
| 1866 | 0·80 | 2·60 | ... | 0·70 | ... | 2·80 | 11·90 | 14·00 | 12·40 | ... | ... | ... | 45·20 |
| 1867 | 1·20 | 2·60 | 0·30 | 0·90 | 1·40 | 5·60 | 15·30 | 12·70 | 15·60 | 0·40 | ... | ... | 56·00 |
| 1868 | 1·40 | 0·30 | 0·30 | 0·30 | ... | 9·60 | 7·50 | 7·40 | 9·50 | ... | ... | ... | 36·30 |
| 1869 | 0·20 | ... | 0·30 | ... | ... | 2·30 | 9·90 | 5·70 | 6·60 | 3·60 | ... | 0·20 | 28·80 |
| 1870 | ... | 0·40 | ... | 0·60 | ... | 6·10 | 22·20 | 16·40 | 9·50 | 4·80 | ... | ... | 60·00 |
| 1871 | ... | 0·20 | ... | ... | 1·10 | 12·30 | 22·40 | 10·00 | 12·10 | ... | ... | 2·50 | 60·60 |
| 1872 | 1·30 | 0·70 | ... | 0·10 | ... | 4·80 | 12·90 | 11·80 | 12·00 | ... | ... | ... | 43·60 |
| 1873 | ... | 0·20 | ... | ... | ... | 0·90 | 20·80 | 8·80 | 5·90 | ... | ... | ... | 36·60 |
| 1874 | 0·30 | 0·20 | 0·30 | ... | ... | 11·30 | 8·90 | 17·10 | 10·30 | 1·00 | ... | ... | 49·40 |
| 1875 | 1·10 | ... | ... | ... | 0·80 | 7·20 | 15·80 | 29·10 | 8·70 | ... | ... | ... | 62·70 |
| 1876 | ... | ... | ... | ... | ... | ... | 21·50 | 9·30 | 10·00 | 2·80 | ... | ... | 43·60 |
| 1877 | 1·50 | 2·30 | 0·80 | 0·20 | 0·10 | 1·90 | 5·60 | 6·50 | 1·80 | 3·00 | ... | 0·50 | 24·20 |
| 1878 | 2·60 | 0·40 | ... | 0·30 | 2·50 | 0·30 | 6·80 | 14·00 | 4·80 | 0·30 | 0·60 | ... | 32·60 |
| 1879 | ... | 0·10 | ... | ... | ... | 7·50 | 9·60 | 16·30 | 9·70 | 2·40 | ... | ... | 45·60 |
| 1880 | ... | 1·00 | ... | ... | ... | 0·60 | 10·10 | 3·80 | 3·60 | 0·20 | 0·30 | ... | 19·60 |
| 1881 | 0·40 | 0·20 | 0·80 | ... | 0·60 | 5·90 | 9·80 | 17·00 | 1·40 | 1·40 | ... | ... | 37·50 |
| 1882 | ... | 0·10 | ... | ... | 0·30 | 6·90 | 8·70 | 12·90 | 8·30 | 2·40 | 1·50 | ... | 41·10 |
| 1883 | 2·70 | ... | 0·30 | ... | 0·70 | 1·32 | 10·09 | 5·81 | 4·65 | 1·29 | ... | ... | 26·86 |
| Mean | 0·76 | 0·69 | 0·62 | 0·14 | 0·57 | 4·59 | 12·96 | 11·72 | 6·93 | 2·05 | 0·28 | 0·10 | 41·41 |
| 1884 | ... | ... | ... | ... | 0·46 | 1·65 | 13·84 | 11·98 | 11·48 | 3·18 | ... | ... | 42·59 |
| 1885 | 0·56 | ... | 0·09 | 0·20 | 1·13 | 7·17 | 6·59 | 9·70 | 3·00 | ... | ... | 3·05 | 31·49 |
| 1886 | 0·11 | ... | 1·47 | ... | 0·26 | 5·31 | 10·38 | 11·80 | 4·87 | 4·95 | 0·01 | 0·71 | 39·87 |
| Mean | 0·72 | 0·64 | 0·61 | 0·14 | 0·57 | 4·60 | 12·76 | 11·68 | 6·89 | 2·10 | 0·26 | 0·19 | 41·16 |

No. 103. BENARES.

Latitude N. 25° 20′. Longitude E. 83° 2′. Elevation 267 feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | 0·80 | 0·85 | 12·72 | 21·04 | 6·53 | ... | ... | 0·06 | ? |
| 1845 | 0·28 | 3·10 | 1·22 | 0·32 | ... | 7·24 | 17·40 | 18·35 | 0·12 | ... | ... | 0·25 | 48·28 |
| 1846 | 0·12 | 0·80 | 0·32 | ... | ... | 6·87 | 12·61 | 12·47 | 5·58 | ... | ... | ... | 38·77 |
| 1847 | 1·58 | 0·52 | ... | ... | ... | 0·92 | 16·34 | 21·82 | 8·05 | 5·57 | 0·73 | ... | 55·53 |
| 1848 | ... | ... | ... | ... | 2·62 | 18·80 | 12·70 | 27·07 | 3·26 | ... | ... | ... | 64·45 |
| 1849 | 0·82 | 0·32 | ... | ... | 0·06 | 3·29 | 2·98 | 10·58 | 2·56 | 4·06 | 0·11 | ... | 24·78 |
| 1850 | 2·14 | 0·34 | ... | ... | ... | 5·12 | 10·32 | 5·53 | 11·32 | 0·50 | ... | ... | 35·32 |
| 1851 | 3·42 | 2·04 | 0·64 | ... | ... | 5·78 | 11·28 | 7·98 | 12·18 | 2·94 | ... | ... | 46·26 |
| 1852 | 0·34 | ... | 1·36 | 0·16 | 2·04 | 4·58 | 18·42 | 2·61 | 1·32 | ... | ... | ... | 30·83 |
| 1853 | 2·35 | 0·56 | ... | 0·03 | ... | 5·48 | 19·75 | 2·59 | 2·88 | 2·06 | ... | ... | 35·61 |
| 1854 | ... | 0·77 | ... | ... | 0·43 | 7·13 | 2·68 | 13·34 | 7·80 | 2·19 | 1·69 | ... | 36·03 |
| 1855 | 0·15 | ... | 1·83 | 0·63 | ... | 2·42 | 17·27 | 1·78 | 9·29 | ... | ? | ? | 33·37? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ? | ? | ? | ? | ? | 0·70 | 15·00 | 4·20 | 4·40 | 3·60 | ... | ... | ? |
| 1861 | ... | ... | ... | ... | ... | 9·50 | 17·90 | 9·70 | 12·30 | 7·00 | ... | ... | 56·40 |
| 1862 | 0·20 | ... | 1·40 | ... | 1·00 | 1·00 | 16·30 | 16·60 | 4·70 | 2·50 | ... | ... | 43·70 |
| 1863 | 0·50 | ... | ... | ... | 0·10 | 4·60 | 19·80 | 8·10 | 11·10 | 4·80 | ... | ... | 49·00 |
| 1864 | 0·20 | 0·60 | 0·10 | 0·50 | 0·10 | 0·70 | 6·10 | 5·10 | 6·00 | ... | ... | ... | 19·40 |
| 1865 | 0·70 | 0·10 | 0·80 | ... | 2·20 | 0·60 | 20·00 | 6·70 | 3·20 | ... | ... | ... | 34·30 |
| 1866 | 0·40 | 1·10 | ... | ... | ... | 2·10 | 6·60 | 9·00 | 8·60 | ... | ... | ... | 27·80 |
| 1867 | 1·10 | 2·60 | 1·10 | ... | 3·60 | 6·60 | 15·00 | 7·90 | 13·60 | 2·50 | ... | ... | 54·00 |
| 1868 | 0·60 | ... | 0·30 | 0·50 | 0·80 | 7·40 | 7·80 | 4·00 | 5·20 | ... | ... | ... | 26·60 |
| 1869 | ... | ... | 0·30 | ... | ... | 3·40 | 10·60 | 8·40 | 10·40 | 5·60 | ... | ... | 38·70 |
| 1870 | ... | 0·10 | 0·30 | 0·40 | ... | 4·20 | 22·50 | 5·70 | 6·20 | 6·50 | ... | ... | 45·90 |
| 1871 | ... | 0·10 | 0·30 | 1·50 | 0·50 | 12·30 | 12·20 | 14·30 | 13·90 | ... | ... | 1·20 | 56·30 |
| 1872 | 1·50 | 0·40 | ... | ... | ... | 5·80 | 12·10 | 7·20 | 4·30 | ... | ... | ... | 31·30 |
| 1873 | ... | ... | 0·10 | ... | 0·20 | 0·10 | 21·70 | 9·20 | 4·00 | ... | ... | ... | 35·30 |
| 1874 | 0·20 | ... | 0·10 | ... | ... | 14·00 | 16·90 | 23·00 | 7·50 | 3·60 | ... | ... | 65·30 |
| 1875 | 2·30 | 0·10 | ... | ... | ... | 5·30 | 10·30 | 22·00 | 5·80 | 0·30 | ... | ... | 46·10 |
| 1876 | ... | ... | ... | ... | ... | 0·20 | 12·20 | 6·00 | 6·00 | 1·40 | ... | ... | 25·80 |
| 1877 | 1·50 | 1·60 | 0·60 | 0·20 | ... | 1·40 | 7·60 | 8·90 | 3·90 | 1·40 | ... | 0·40 | 27·90 |
| 1878 | 2·20 | 0·10 | ... | 0·80 | 1·60 | 2·40 | 4·60 | 13·30 | 3·90 | 0·40 | 1·00 | ... | 30·30 |
| 1879 | ... | 0·45 | ... | ... | 0·01 | 6·04 | 13·49 | 13·20 | 13·26 | 4·64 | ... | ... | 51·09 |
| 1880 | ... | 1·43 | ... | ... | 0·76 | 0·92 | 13·35 | 4·79 | 2·47 | 1·83 | 0·61 | 0·20 | 26·36 |
| 1881 | 0·95 | 0·21 | 0·68 | 0·43 | 0·47 | 5·04 | 7·43 | 16·23 | 3·05 | 1·48 | ... | ... | 35·07 |
| 1882 | ... | 0·39 | 0·02 | 0·14 | 0·21 | 4·06 | 8·78 | 17·96 | 1·49 | 5·90 | 1·23 | ... | 40·18 |
| 1883 | 2·24 | 0·12 | 0·59 | ... | 0·54 | 5·00 | 14·84 | 5·66 | 3·42 | 1·26 | ... | ... | 33·67 |
| Mean | 0·74 | 0·53 | 0·35 | 0·17 | 0·52 | 4·77 | 12·99 | 10·90 | 6·38 | 2·00 | 0·15 | 0·06 | 39·56 |
| 1884 | ... | 0·04 | ... | ... | 0·63 | 1·63 | 8·44 | 10·13 | 7·34 | 4·08 | ... | ... | 32·29 |
| 1885 | 1·01 | ... | 0·16 | 0·11 | 1·40 | 9·67 | 8·43 | 7·80 | 7·61 | ... | ... | 3·05 | 39·24 |
| 1886 | 0·22 | 0·07 | 1·41 | ... | 0·54 | 10·33 | 16·20 | 7·07 | 7·71 | 5·38 | 0·12 | 0·64 | 49·69 |
| Mean | 0·72 | 0·49 | 0·37 | 0·15 | 0·54 | 4·96 | 12·84 | 10·70 | 6·47 | 2·09 | 0·14 | 0·15 | 39·62 |

No. 104. ROBERTSGANJ.

Latitude N. 24° 42′. Longitude E. 83° 0′. Elevation 1,000? feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. III.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1864 | 0·20 | 0·10 | 0·10 | 0·10 | 5·50 | 0·30 | 9·50 | 7·10 | 9·50 | ... | 0·10 | ... | 32·50 |
| 1865 | 0·70 | 0·40 | 0·70 | ... | 5·20 | 2·40 | 30·30 | 8·20 | 2·20 | ... | ... | 0·40 | 50·50 |
| 1866 | 1·10 | 1·90 | ... | 1·10 | ... | 6·30 | 9·30 | 10·00 | 11·30 | 0·10 | ... | ... | 41·10 |
| 1867 | 2·40 | 2·20 | 0·30 | 2·00 | 2·10 | 6·70 | 6·60 | 18·30 | 6·90 | 1·40 | ... | ... | 48·90 |
| 1868 | 0·90 | 0·20 | 0·60 | ... | ... | 15·10 | 13·10 | 2·60 | 6·20 | ... | ... | ... | 38·70 |
| 1869 | 0·20 | ... | 1·20 | ... | ... | 4·90 | 13·90 | 6·00 | 5·40 | 4·10 | ... | ... | 35·70 |
| 1870 | 0·20 | 0·70 | ... | 1·10 | ... | 2·40 | 15·20 | 10·70 | 13·20 | 11·80 | ... | ... | 55·30 |
| 1871 | ... | ... | 0·80 | ... | 0·40 | 11·70 | 13·90 | 11·40 | 11·10 | ... | ... | 0·40 | 49·70 |
| 1872 | 0·50 | 1·20 | 0·30 | ... | ... | 6·60 | 12·80 | 11·00 | 3·30 | ... | ... | ... | 35·70 |
| 1873 | ... | ... | 1·20 | ... | 0·10 | 0·20 | 24·00 | 3·90 | 3·70 | ... | ... | ... | 33·10 |
| 1874 | 1·90 | 0·40 | 0·20 | ... | 0·20 | 20·50 | 6·20 | 19·40 | 13·00 | 6·70 | ... | ... | 68·50 |
| 1875 | 0·20 | 0·80 | ... | ... | 0·80 | 10·30 | 9·40 | 13·00 | 3·40 | 1·50 | ... | ... | 39·40 |
| 1876 | ... | ... | ... | ... | ... | 3·50 | 29·20 | 13·10 | 9·90 | 1·70 | ... | ... | 57·40 |
| 1877 | 3·20 | 0·80 | 0·40 | 0·40 | 1·10 | 1·50 | 7·10 | 8·10 | 7·00 | 2·70 | ... | 1·80 | 34·10 |
| 1878 | 1·10 | ... | ... | 0·60 | 0·80 | 2·30 | 4·50 | 8·00 | 7·80 | 0·20 | 1·50 | ... | 26·80 |
| 1879 | ... | 1·30 | ... | ... | ... | 4·90 | 15·80 | 16·00 | 7·50 | 3·30 | ... | ... | 48·80 |
| 1880 | ... | 1·10 | ... | 0·10 | ... | 1·00 | 11·80 | 7·80 | 6·10 | 4·20 | 0·80 | ... | 32·90 |
| 1881 | ... | ... | 1·30 | ... | 1·00 | 2·30 | 18·50 | 15·90 | 2·10 | 3·80 | ... | ... | 44·90 |
| 1882 | ... | ... | ... | ... | 0·10 | 3·10 | 9·90 | 14·80 | 6·80 | 12·50 | 2·20 | ... | 49·40 |
| 1883 | 2·20 | ... | 0·60 | ... | ... | 2·25 | 6·13 | 3·72 | 5·08 | 0·60 | ... | ... | 20·58 |
| Mean | 0·74 | 0·56 | 0·39 | 0·27 | 0·87 | 5·41 | 13·36 | 10·45 | 7·07 | 2·73 | 0·23 | 0·13 | 42·21 |
| 1884 | ... | ... | ... | ... | 0·44 | 4·35 | 13·86 | 15·47 | 10·25 | 1·43 | ... | ... | 45·80 |
| 1885 | 0·94 | 0·10 | 0·20 | ... | 1·00 | 3·86 | 9·18 | 13·75 | 8·98 | 0·03 | ... | 3·10 | 41·14 |
| 1886 | 0·04 | ... | 1·20 | ... | 1·50 | 6·09 | 8·49 | 11·52 | 15·31 | 3·85 | 0·45 | 0·59 | 49·04 |
| Mean | 0·69 | 0·49 | 0·40 | 0·23 | 0·88 | 5·33 | 12·99 | 10·86 | 7·65 | 2·60 | 0·22 | 0·27 | 42·61 |

No. 105. DUDHI.

Latitude N. 24° 2′. Longitude E. 83° 21′ Elevation 1,000? feet.

Administration: N.-W. PROVINCES AND OUDH. Rainfall Province No. VII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1874 | 1·10 | 1·20 | ... | ... | 0·60 | 14·70 | 6·00 | 19·80 | 11·70 | 6·80 | ... | ... | 61·90 |
| 1875 | 0·40 | 1·10 | ... | ... | ... | 5·70 | 11·20 | 19·40 | 4·90 | ... | ... | ... | 42·70 |
| 1876 | ... | ... | ... | ... | ... | 1·10 | 22·20 | 10·20 | 4·70 | 3·00 | ... | ... | 41·20 |
| 1877 | 0·80 | 1·90 | 0·10 | 1·30 | 4·00 | 1·10 | 6·10 | 8·60 | 8·10 | 4·50 | ... | 0·30 | 36·80 |
| 1878 | 0·30 | 0·50 | 1·00 | 1·40 | 2·00 | 3·30 | 7·10 | 13·80 | 7·50 | 0·60 | 3·00 | ... | 40·50 |

DUDHI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1879 | ... | 0·40 | ... | ... | 0·20 | 5·40 | 12·60 | 17·20 | 6·30 | 2·00 | ... | ... | 44·10 |
| 1880 | ... | 1·30 | ... | ... | 0·70 | 2·20 | 6·20 | 4·80 | 3·70 | 8·70 | ... | ... | 27·60 |
| 1881 | ... | 0·20 | 1·40 | ... | ... | 3·50 | 18·00 | 18·60 | 2·00 | 4·80 | ... | ... | 48·50 |
| 1882 | ... | ... | ... | ... | ... | 6·20 | 8·70 | 11·10 | 6·80 | 3·30 | 0·90 | ... | 37·00 |
| 1883 | 1·40 | 0·20 | 1·10 | ... | ... | 6·20 | 8·58 | 8·37 | 5·59 | 0·42 | 0·45 | ... | 32·31 |
| Mean | 0·40 | 0·68 | 0·36 | 0·27 | 0·75 | 4·94 | 10·67 | 13·19 | 6·13 | 3·41 | 0·44 | 0·03 | 41·27 |
| 1884 | ... | 0·23 | ... | ... | 0·35 | 0·43 | 16·07 | 14·26 | 9·06 | 2·73 | ... | ... | 43·13 |
| 1885 | 0·63 | 0·10 | 0·23 | ... | 4·26 | 6·33 | 12·02 | 13·62 | 5·92 | 0·80 | ... | 3·76 | 47·67 |
| 1886 | ... | ... | 4·03 | ... | ... | 9·79 | 4·90 | 7·34 | 7·51 | 5·39 | ... | ... | 38·96 |
| Mean | 0·36 | 0·55 | 0·60 | 0·21 | 0·93 | 5·07 | 10·74 | 12·85 | 6·44 | 3·31 | 0·33 | 0·31 | 41·70 |

No. 105 A. JHUNJHNU.

Latitude N. 28° 7′. Longitude E. 75° 28′. Elevation 1,180 feet.

Administration : RAJPUTANA.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1883 | ... | ... | ... | ... | ... | 2·81 | 5·71 | ... | 1·96 | ... | ... | ... | 10·48 |
| 1884 | 0·09 | ... | ... | ... | 0·03 | 11·49 | 6·99 | 1·97 | 9·81 | ... | ... | ... | 30·38 |
| 1885 | 1·99 | ... | 0·03 | 0·23 | 1·14 | 1·26 | 4·80 | 12·16 | 1·18 | ... | ... | 0·60 | 23·39 |
| 1886 | 0·20 | ... | 0·79 | ... | 2·30 | 1·70 | 16·15 | 1·37 | 0·10 | ... | ... | ... | 22·61 |
| Mean | 0·57 | ... | 0·20 | 0·06 | 0·87 | 4·32 | 8·41 | 3·88 | 3·26 | ... | ... | 0·15 | 21·72 |

No. 106. BICKANEER.

Latitude N. 27° 59′. Longitude E. 73° 14′. Elevation 744 feet.

Administration : RAJPUTANA. Rainfall Province No. IV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1878 | 0·01 | 0·44 | ... | 1·05 | 3·34 | 1·77 | 5·49 | 5·62 | ... | 0·16 | ... | ... | 17·88 |
| 1879 | ... | 0·05 | 0·27 | ... | 0·66 | 6·41 | 0·14 | 6·30 | 3·02 | 0·02 | ... | 0·05 | 16·92 |
| 1880 | 0·03 | 0·56 | ... | ... | 0·35 | 1·71 | 3·82 | 2·61 | 0·58 | 0·05 | 0·07 | 0·08 | 9·86 |
| 1881 | ... | ... | 0·18 | 0·54 | 0·95 | 0·73 | 7·80 | 2·47 | 0·52 | 0·01 | ... | 0·01 | 13·21 |

BICKANEER—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | 1·14 | 0·64 | ... | ... | 1·89 | 0·01 | 0·58 | 2·54 | 2·94 | ... | ... | ... | 15·74 |
| 1883 | 0·58 | ... | 0·04 | ... | 3·62 | ... | 5·12 | 0·10 | 1·55 | 0·03 | 0·66 | ... | 11·70 |
| Mean | 0·29 | 0·28 | 0·08 | 0·26 | 1·80 | 1·77 | 4·82 | 3·27 | 1·43 | 0·05 | 0·12 | 0·02 | 14·19 |
| 1884 | ... | 0·50 | 0·01 | ... | 0·46 | 1·64 | 0·97 | 2·04 | 4·79 | 0·46 | 0·02 | ... | 10·89 |
| 1885 | 0·54 | ... | ... | 0·18 | 1·97 | 1·38 | 1·85 | 1·72 | 0·01 | ... | ... | 0·06 | 7·71 |
| 1886 | 0·10 | ... | 0·09 | ... | 0·94 | 2·56 | 3·66 | 1·27 | ... | ... | ... | ... | 8·62 |
| Mean | 0·27 | 0·24 | 0·07 | 0·20 | 1·58 | 1·80 | 3·94 | 2·74 | 1·49 | 0·08 | 0·08 | 0·02 | 12·51 |

No. 106 A. JEYSULMERE.

Latitude N. 26° 55′. Longitude E. 70° 57′. Elevation 959 feet.

Administration: RAJPUTANA.

| Year. | Inches of Rainfall. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1883 | 0·84 | ... | ... | ... | 1·02 | 0·22 | 2·75 | 0·01 | 2·13 | ... | ... | ... | 6·97 |
| 1884 | ... | 0·18 | ... | ... | ... | 1·47 | 2·69 | 2·61 | 1·77 | ... | ... | ... | 8·72 |
| 1885 | 0·12 | ... | ... | 0·18 | 0·48 | 0·66 | 2·50 | 2·30 | 0·03 | ... | ... | ... | 6·27 |
| 1886 | 0·07 | ... | 0·06 | ... | 0·20 | 1·25 | 4·03 | 2·53 | ... | ... | ... | ... | 8·14 |
| Mean | 0·26 | 0·05 | 0·02 | 0·05 | 0·43 | 0·90 | 2·99 | 1·86 | 0·98 | ... | ... | ... | 7·54 |

No. 106 B. NAGAR.

Latitude N. 27° 18′. Longitude E. 73° 45′. Elevation 1,036 feet.

Administration: RAJPUTANA.

| Year. | Inches of Rainfall. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | ... | 0·05 | ... | ... | 0·30 | 5·72 | 2·68 | 4·19 | 12·11 | 0·47 | ... | ... | 25·52 |
| 1885 | 0·43 | ... | 0·05 | 0·16 | 0·75 | 0·86 | 2·58 | 3·33 | 1·11 | ... | ... | ... | 9·27 |
| 1886 | 0·16 | ... | 0·01 | 0·06 | 0·28 | 3·55 | 5·14 | 2·54 | 1·27 | 0·14 | ... | ... | 13·15 |
| Mean | 0·20 | 0·02 | 0·02 | 0·07 | 0·44 | 3·38 | 3·47 | 3·35 | 4·83 | 0·20 | ... | ... | 15·98 |

No. 107. ULWUR.

Latitude N. 27° 34′. Longitude E. 76° 38′. Elevation 1,960 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1871 | ... | ... | ... | ... | 1·95 | 9·18 | 2·80 | 1·50 | ... | ... | ... | ... | 15·43 |
| 1872 | ... | ... | ... | ... | 0·04 | 4·57 | 8·17 | 12·01 | 3·56 | ... | ... | ... | 28·35 |
| 1873 | ... | 0·17 | 0·30 | ... | 2·50 | 10·20 | 3·40 | 4·00 | 6·90 | 9·00 | 2·00 | ... | 38·47 |
| 1874 | Not on record. | | | | | | | | | | | | |
| 1875 | ... | ... | ... | ... | 0·76 | 0·14 | 7·82 | 8·27 | 10·39 | 1·68 | ... | ... | 29·06 |
| 1876 | ... | 0·78 | 0·23 | 0·52 | 3·03 | 1·62 | 5·73 | 1·56 | 6·76 | 1·09 | ... | ... | 21·32 |
| 1877 | 0·33 | 0·57 | 0·28 | 0·32 | 2·50 | 1·80 | 0·83 | 0·97 | 1·79 | 1·67 | ... | 3·81 | 14·87 |
| 1878 | 0·25 | 0·72 | 0·16 | 0·10 | 3·27 | 0·81 | 9·68 | 13·38 | 0·10 | ... | ... | ... | 28·47 |
| 1879 | 0·28 | 1·72 | 0·10 | ... | ... | 5·89 | 7·94 | 19·49 | 5·36 | 1·27 | ... | 0·67 | 42·72 |
| 1880 | ... | 0·73 | ... | ... | ... | 0·48 | 15·32 | 9·79 | 2·42 | ... | 0·12 | 0·67 | 29·53 |
| 1881 | ... | 1·02 | 1·15 | 0·27 | 0·16 | 1·29 | 17·13 | 16·04 | 0·04 | ... | ... | ... | 37·10 |
| 1882 | 1·30 | ... | ... | ... | 0·30 | 2·59 | 17·63 | 2·82 | 10·02 | ... | ... | 0·17 | 34·83 |
| 1883 | 0·66 | ... | 0·27 | 0·07 | 1·10 | 1·44 | 9·37 | 1·60 | 7·28 | ... | ... | ... | 21·79 |
| Mean | **0·24** | **0·48** | **0·21** | **0·11** | **1·30** | **3·33** | **8·82** | **7·62** | **4·55** | **1·23** | **0·18** | **0·44** | **28·51** |
| 1884 | 0·09 | ... | 0·15 | ... | 0·05 | 5·21 | 9·74 | 10·71 | 23·76 | ... | 0·05 | ... | 49·76 |
| 1885 | 1·27 | ... | ... | ... | 3·16 | 7·75 | 6·89 | 16·07 | 0·05 | ... | ... | 1·63 | 36·82 |
| 1886 | 0·27 | ... | 0·53 | ... | 0·35 | 3·54 | 13·57 | 1·08 | 2·58 | 0·53 | ... | ... | 22·45 |
| Mean | **0·30** | **0·38** | **0·21** | **0·09** | **1·28** | **3·77** | **9·07** | **7·95** | **5·40** | **1·02** | **0·14** | **0·46** | **30·07** |

No. 10. BHURTPORE.

Latitude N. 27° 13′. Longitude E. 77° 32′. Elevation 725 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1866 | ... | ... | ... | ... | ... | 0·80 | 9·65 | 9·10 | 0·82 | ... | ... | ... | 20·37 |
| 1867 | 1·00 | ... | ... | ... | ... | 1·50 | 11·63 | 10·96 | 2·68 | 0·17 | ... | ... | 27·94 |
| 1868 | ... | 0·30 | 0·43 | 1·31 | 0·34 | 1·07 | 5·57 | 0·84 | 0·58 | ... | ... | ... | 10·44 |
| 1869 | Not on record. | | | | | | | | | | | | |
| 1870 | | | | | | | | | | | | | |
| 1871 | 1·04 | ... | ... | ... | 2·64 | 4·89 | 11·26 | 2·55 | 1·22 | 0·61 | ... | ... | 24·21 |
| 1872 | ... | ... | ... | ... | ... | 0·40 | 4·56 | 9·53 | 2·46 | ... | ... | ... | 16·95 |
| 1873 | 0·05 | ... | ... | ... | 1·74 | 1·14 | 18·93 | 15·23 | 7·69 | ... | ... | 0·10 | 44·88 |
| 1874 | 0·05 | 0·03 | 0·45 | ... | 0·61 | 3·70 | 7·35 | 16·88 | 3·27 | 0·10 | ... | ... | 32·44 |
| 1875 | 0·35 | 1·54 | ... | ... | 0·35 | 0·22 | 4·37 | 5·84 | 10·52 | ... | ... | 0·77 | 23·96 |
| 1876 | ... | ... | 0·10 | 0·18 | 0·70 | 2·28 | 12·53 | 7·09 | 9·62 | 0·40 | ... | ... | 32·90 |
| 1877 | 0·18 | 0·72 | 0·25 | 0·05 | 0·45 | 0·97 | 3·21 | 0·10 | 1·10 | 8·20 | 0·05 | 2·13 | 17·41 |
| 1878 | 0·35 | ... | 0·08 | 0·64 | 2·25 | 0·74 | 5·15 | 6·09 | 1·40 | ... | ... | 0·08 | 16·78 |
| 1879 | 0·82 | ... | 0·26 | 0·13 | ... | 4·03 | 7·51 | 14·18 | 9·22 | ... | ... | 0·26 | 36·41 |

BHURTPORE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1880 | ... | 0·32 | ... | ... | 0·05 | 0·10 | 4·09 | 3·11 | 2·59 | ... | 0·18 | 0·62 | 11·06 |
| 1881 | ... | 0·62 | 0·73 | 0·25 | 0·22 | 1·72 | 13·02 | 15·24 | 0·50 | ... | ... | ... | 32·30 |
| 1882 | 0·32 | 0·05 | ... | ... | 0·80 | 2·87 | 17·29 | 3·31 | 5·42 | ... | ... | ... | 30·06 |
| 1883 | 1·98 | ... | 0·26 | ... | 0·35 | 2·26 | 5·51 | 1·13 | 5·28 | ... | 0·05 | ... | 16·82 |
| Mean | 0·38 | 0·22 | 0·16 | 0·16 | 0·66 | 1·79 | 8·85 | 7·57 | 4·02 | 0·59 | 0·02 | 0·25 | 24·67 |
| 1884 | 0·32 | 0·10 | ... | ... | 0·15 | 2·47 | 3·60 | 8·79 | 16·60 | ... | 0·05 | 0·12 | 32·20 |
| 1885 | 0·25 | ... | 0·20 | ... | 2·21 | 3·17 | 11·39 | 15·10 | ... | ... | ... | 0·65 | 32·97 |
| 1886 | 0·25 | ... | 0·72 | ... | 0·34 | 2·45 | 11·14 | 5·47 | 1·78 | 0·30 | ... | ... | 22·45 |
| Mean | 0·37 | 0·19 | 0·18 | 0·13 | 0·69 | 1·94 | 8·83 | 7·92 | 4·36 | 0·52 | 0·02 | 0·25 | 25·40 |

No. 109. JEYPORE.

Latitude N. 26° 55′. Longitude E. 75° 50′. Elevation 1,592 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ? | ? | ? | ? | ? | ? | ? | 6·17 | 1·62 | 0·05 | ... | 0·95 | ? |
| 1868 | ... | 0·05 | 0·57 | 0·63 | ... | 0·50 | 7·80 | ... | 1·08 | ... | ... | ... | 10·63 |
| 1869 | 0·24 | ... | 1·44 | ... | ... | ... | 6·60 | 1·80 | 7·08 | 0·24 | ... | 0·24 | 17·64 |
| 1870 | ? | ? | ? | ? | ? | ? | ? | 8·50 | 0·70 | ... | ... | 1·50 | ? |
| 1871 | ... | ... | ... | 0·30 | ... | 12·52 | 11·51 | 3·11 | 0·60 | ... | 0·50 | 0·10 | 28·64 |
| 1872 | ... | 0·10 | ... | 0·10 | 0·61 | 2·42 | 6·14 | 14·77 | 5·04 | ... | ... | 1·50 | 30·68 |
| 1873 | 0·50 | ... | ... | 1·00 | 1·60 | 13·63 | 11·71 | 2·00 | 2·00 | ... | ... | ... | 32·44 |
| 1874 | ... | ... | ... | ... | 1·50 | 3·80 | 6·60 | 6·47 | 0·42 | ... | ... | ... | 18·79 |
| 1875 | ... | 0·60 | ... | 0·10 | 0·98 | 0·91 | 17·04 | 2·93 | 2·18 | 0·49 | ... | 1·09 | 26·32 |
| 1876 | ... | 0·03 | 0·15 | 0·23 | 0·58 | 0·67 | 21·46 | 1·70 | 4·24 | 0·16 | 0·50 | 0·10 | 29·82 |
| 1877 | 0·22 | 0·37 | 0·23 | 0·50 | 1·33 | 3·31 | 0·81 | 0·61 | 0·56 | 1·54 | 0·17 | 1·01 | 10·66 |
| 1878 | 0·39 | 0·90 | ... | 0·34 | 0·96 | 1·03 | 6·39 | 10·60 | 3·16 | ... | ... | ... | 23·77 |
| 1879 | 0·05 | 0·54 | 0·12 | ... | ... | 5·4 | 4·64 | 20·82 | 2·54 | 0·81 | ... | 0·93 | 35·88 |
| 1880 | ... | 0·24 | ... | ... | 0·38 | 2·81 | 9·05 | 2·65 | 2·08 | 0·18 | 0·30 | 0·16 | 17·85 |
| 1881 | ... | 0·02 | 0·35 | 0·35 | 0·35 | 1·28 | 12·24 | 9·58 | 0·75 | ... | ... | 0·01 | 24·93 |
| 1882 | 1·04 | ... | ... | 0·08 | 0·45 | 1·08 | 12·27 | 3·61 | 4·87 | ... | ... | ... | 23·40 |
| 1883 | 1·22 | ... | 0·21 | ... | 2·05 | 3·15 | 7·20 | 0·95 | 7·73 | 0·33 | ... | ... | 22·84 |
| Mean | 0·24 | 0·19 | 0·20 | 0·24 | 0·72 | 3·50 | 9·43 | 5·66 | 2·74 | 0·22 | 0·09 | 0·45 | 23·68 |
| 1884 | 0·07 | 0·06 | 0·11 | ... | ... | 1·76 | 3·12 | 5·59 | 14·73 | ... | 0·13 | 0·01 | 25·58 |
| 1885 | 0·52 | ... | 0·02 | 0·02 | 0·67 | 3·33 | 7·31 | 15·96 | 0·37 | 0·01 | ... | 0·69 | 28·90 |
| 1886 | 0·58 | ... | 0·06 | ... | 0·34 | 1·61 | 10·34 | 4·65 | 1·29 | 1·01 | 0·02 | ... | 19·90 |
| Mean | 0·27 | 0·16 | 0·18 | 0·20 | 0·66 | 3·29 | 9·01 | 6·12 | 3·15 | 0·24 | 0·08 | 0·41 | 23·77 |

No. 110. SAMBHAR.

Latitude N. 26° 55′. Longitude E. 75° 14′. Elevation 1,254 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1875 | ? | ? | ? | ? | ? | ... | 15·00 | ... | 5·75 | 1·25 | ... | 1·50 | ? |
| 1876 | ... | ... | ... | 0·50 | 2·50 | 1·25 | 8·00 | 6·75 | 12·00 | 1·50 | 0·50 | ... | 33·00 |
| 1877 | ... | 0·25 | ... | 0·25 | 0·85 | 4·80 | ... | 0·30 | ... | 1·70 | 1·05 | 0·85 | 10·05 |
| 1878 | 0·10 | ... | ... | 0·30 | 2·43 | ... | 2·95 | 2·80 | 3·76 | ... | ... | ... | 12·34 |
| 1879 | ... | 0·34 | 0·20 | ... | 0·05 | 3·61 | 2·07 | 15·77 | 2·40 | 0·57 | ... | 0·42 | 25·43 |
| 1880 | ... | 0·27 | ... | ... | 0·25 | 0·97 | 8·19 | 4·96 | 0·64 | 0·75 | 0·34 | 0·20 | 16·57 |
| 1881 | ... | ... | 1·56 | 0·20 | 0·13 | 1·42 | 7·11 | 6·77 | 1·26 | ... | ... | 0·45 | 18·90 |
| 1882 | 1·06 | 0·14 | ... | 0·10 | 0·98 | 0·74 | 12·73 | 7·26 | 4·92 | ... | ... | ... | 27·93 |
| 1883 | 0·38 | ... | ... | ... | 2·46 | 0·68 | 8·69 | 0·58 | 2·67 | ... | ... | ... | 15·46 |
| Mean | **0·19** | **0·12** | **0·22** | **0·17** | **1·21** | **1·50** | **7·19** | **5·02** | **3·71** | **0·64** | **0·21** | **0·38** | **20·56** |
| 1884 | 0·01 | 0·07 | 0·15 | ... | 0·23 | 2·84 | 6·05 | 1·53 | 13·63 | ... | 0·32 | 0·04 | 24·87 |
| 1885 | 0·44 | ... | ... | 0·04 | 1·31 | 3·09 | 6·12 | 11·32 | 0·40 | ... | ... | 1·31 | 24·03 |
| 1886 | 0·05 | ... | 0·03 | ... | 1·45 | 0·91 | 7·95 | 8·68 | 1·53 | 0·47 | ... | ... | 21·07 |
| Mean | **0·19** | **0·10** | **0·18** | **0·13** | **1·15** | **1·69** | **7·07** | **5·56** | **4·08** | **0·52** | **0·18** | **0·40** | **21·25** |

No. 110 A. LALSOT.

Latitude N. 26° 34′. Longitude E. 76° 24′. Elevation 1,020 feet.

Administration: RAJPUTANA.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1883 | ... | ... | ... | ... | ... | 3·08 | 9·25 | 0·02 | 4·11 | ... | ... | ... | 16·46 |
| 1884 | 0·14 | 0·29 | ... | ... | ... | 2·61 | 10·95 | 5·37 | 8·87 | ... | ... | ... | 28·23 |
| 1885 | 0·30 | ... | ... | ... | ... | 5·81 | 5·28 | 22·21 | ... | ... | ... | 0·78 | 34·38 |
| 1886 | 0·04 | ... | ... | ... | 0·36 | 1·49 | 10·37 | 10·56 | 1·30 | 0·15 | ... | ... | 24·27 |
| Mean | **0·12** | **0·07** | ... | ... | **0·09** | **3·25** | **8·96** | **9·54** | **3·57** | **0·04** | ... | **0·20** | **25·84** |

No. 110 B. KEROWLEE.

Latitude N. 26° 33′. Longitude E. 77° 10′. Elevation 1,020 feet.

Administration: RAJPUTANA.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1880 | ... | 0·10 | ... | ... | 0·97 | 2·12 | 5·97 | 4·32 | 5·70 | 0·55 | ... | ... | 19·73 |
| 1881 | ... | ... | 0·33 | 0·13 | 0·13 | 2·06 | 13·51 | 13·05 | 1·62 | ... | ... | ... | 30·83 |
| 1882 | 0·22 | ... | ... | ... | 0·18 | 6·08 | 18·00 | 8·18 | 7·37 | ... | ... | ... | 40·03 |
| 1883 | 1·12 | ... | 0·22 | ... | 1·03 | 2·25 | 9·94 | 0·86 | 6·20 | ... | ... | ... | 21·62 |
| 1884 | 0·54 | 0·02 | 0·04 | ... | 0·06 | 3·04 | 7·12 | 3·81 | 14·74 | 0·03 | ... | 0·22 | 29·62 |
| 1885 | 0·31 | ... | ... | 0·29 | 1·51 | 6·23 | 8·05 | 18·00 | 0·92 | ... | ... | 1·72 | 37·03 |
| 1886 | 0·22 | ... | ... | ... | 0·86 | 3·12 | 8·21 | 3·55 | 1·62 | 0·86 | ... | ... | 18·44 |
| Mean | 0·35 | 0·02 | 0·08 | 0·06 | 0·68 | 3·56 | 10·11 | 7·40 | 5·45 | 0·21 | ... | 0·28 | 28·20 |

No. 111. AJMERE.

Latitude N. 28° 26′. Longitude E. 74° 37′. Elevation 1,611 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1863 | 0·50 | ... | 0·10 | ... | 0·53 | 9·70 | 12·34 | 2·97 | ... | 1·20 | ... | ... | 27·34 |
| 1864 | 0·92 | 0·50 | ... | ... | 0·11 | 0·08 | 7·97 | 8·54 | 0·52 | ... | ... | ... | 18·64 |
| 1865 | 0·25 | 0·75 | 5·00 | ... | ... | 0·02 | 1·47 | 7·38 | 1·18 | 0·42 | ... | ... | 16·47 |
| 1866 | ... | ... | ... | 0·44 | 0·35 | 1·33 | 3·70 | 20·04 | ... | 0·30 | ... | ... | 26·16 |
| 1867 | ... | ... | ... | ... | 0·30 | 0·51 | 2·05 | 7·00 | 13·92 | 1·66 | ... | ... | 1·83 27·27 |
| 1868 | ... | 0·12 | 0·33 | 0·30 | 0·22 | 1·03 | 6·37 | 0·85 | ... | ... | ... | 0·06 | 9·28 |
| 1869 | 0·40 | 0·40 | 1·95 | ... | ... | ... | 4·65 | 1·55 | 14·60 | 0·20 | ... | 0·17 | 23·92 |
| 1870 | ... | ... | 0·72 | ... | 0·03 | 3·40 | 0·67 | 11·30 | 0·05 | 0·40 | ... | 0·40 | 16·97 |
| 1871 | ... | ... | ... | 0·05 | 1·12 | 8·23 | 6·65 | 0·50 | 4·25 | ... | 0·90 | ... | 21·70 |
| 1872 | 0·30 | ... | ... | ... | 1·20 | 1·28 | 7·57 | 18·15 | 3·35 | ... | ... | 0·15 | 32·00 |
| 1873 | 0·15 | ... | ... | ... | 1·77 | 1·71 | 9·13 | 5·82 | 2·58 | ... | ... | 0·11 | 21·27 |
| 1874 | 0·05 | 0·03 | 0·02 | ... | 0·66 | 4·59 | 5·47 | 5·02 | 1·91 | ... | ... | ... | 17·75 |
| 1875 | 0·10 | 2·84 | ... | ... | 1·53 | 0·98 | 8·00 | 4·19 | 17·80 | ... | ... | 0·93 | 36·37 |
| 1876 | ... | ... | 0·01 | ... | ... | 2·41 | 8·05 | 5·98 | 6·33 | 0·63 | 0·28 | 0·04 | 23·73 |
| 1877 | 0·04 | 0·89 | 0·16 | 0·43 | 0·82 | 0·21 | 4·23 | 0·23 | 0·19 | 1·81 | 1·35 | 1·40 | 11·76 |
| 1878 | ... | 0·04 | ... | 0·03 | 2·78 | 1·65 | 10·06 | 15·32 | 1·17 | ... | ... | ... | 31·05 |
| 1879 | ... | 0·89 | 0·27 | 0·02 | 0·13 | 6·56 | 0·38 | 16·71 | 2·03 | 0·10 | ... | 0·51 | 27·60 |
| 1880 | ... | 0·28 | ... | ... | 0·18 | 0·94 | 10·21 | 2·85 | 2·91 | 0·47 | 0·28 | 0·10 | 18·22 |
| 1881 | 0·03 | 0·03 | 0·49 | 0·70 | 0·18 | 0·45 | 9·26 | 7·17 | 2·45 | ... | ... | 0·45 | 21·21 |
| 1882 | 1·05 | 0·31 | ... | ... | 0·57 | 0·33 | 16·18 | 5·82 | 3·20 | ... | ... | ... | 27·46 |
| 1883 | 0·38 | ... | 0·02 | ... | 2·19 | 1·09 | 9·24 | 0·45 | 3·91 | ... | ... | ... | 17·28 |
| Mean | 0·20 | 0·34 | 0·43 | 0·11 | 0·71 | 2·29 | 7·08 | 7·37 | 3·34 | 0·26 | 0·13 | 0·29 | 22·55 |
| 1884 | 0·23 | 0·12 | 0·04 | ... | 0·12 | 5·05 | 6·65 | 4·96 | 10·41 | 0·05 | 0·18 | 0·01 | 27·82 |
| 1885 | 0·37 | ... | ... | ... | 1·31 | 4·54 | 7·19 | 10·92 | 0·21 | ... | ... | 0·28 | 24·82 |
| 1886 | 0·20 | 0·05 | ... | ... | 0·95 | 1·89 | 3·94 | 4·60 | 1·50 | 1·01 | ... | ... | 15·14 |
| Mean | 0·21 | 0·30 | 0·38 | 0·09 | 0·72 | 2·48 | 6·93 | 7·30 | 3·43 | 0·32 | 0·12 | 0·27 | 22·55 |

No. 112. NUSSEERABAD.

Latitude N. 26° 18′. Longitude E. 74° 47′. Elevation 1,461 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1866 | ... | ... | ... | ... | ... | 1·54 | 6·79 | 15·26 | ... | 0·24 | ... | ... | 23·83 |
| 1867 | ... | ... | ... | ... | ... | 1·04 | 8·28 | 8·92 | 2·05 | 0·09 | ... | 2·90 | 23·28 |
| 1868 | ... | ... | 0·40 | 0·12 | ... | 0·60 | 7·58 | 0·06 | 0·80 | 0·65 | ... | 0·29 | 10·41 |
| 1869 | 0·16 | 0·18 | 1·25 | ... | 0·02 | ... | 7·05 | 1·91 | 9·77 | ... | ... | 0·18 | 20·52 |
| 1870 | ... | ... | ... | 0·04 | ... | 2·16 | 8·84 | 5·91 | 0·17 | 0·47 | ... | 0·02 | 17·61 |
| 1871 | ... | ... | ... | 0·24 | 0·30 | 5·55 | 6·67 | 0·49 | 2·60 | ... | ... | 0·36 | 16·21 |
| 1872 | 0·10 | ... | 0·22 | ... | 1·57 | 2·54 | 5·21 | 12·44 | 5·10 | ... | ... | 0·09 | 27·27 |
| 1873 | 0·13 | 0·04 | ... | ... | 0·76 | 0·54 | 10·98 | 6·75 | 1·48 | ... | ... | ... | 20·68 |
| 1874 | ... | ... | ... | ... | ... | 2·57 | 6·32 | 4·69 | 3·63 | ... | ... | ... | 17·21 |
| 1875 | 0·50 | 6·77 | ... | ... | 2·10 | 1·85 | 6·68 | 5·22 | 13·46 | ... | ... | 0·50 | 37·08 |
| 1876 | ... | ... | ... | 0·04 | ... | 0·84 | 7·37 | 6·14 | 5·68 | 0·31 | 0·29 | ... | 20·67 |
| 1877 | 0·13 | 0·65 | 0·07 | 0·21 | 1·25 | 0·13 | 5·63 | 0·20 | 0·50 | 2·37 | 1·97 | 0·39 | 13·50 |
| 1878 | ... | 0·05 | ... | ... | 3·13 | 2·34 | 7·66 | 10·80 | 1·44 | ... | ... | ... | 25·42 |
| 1879 | ... | 1·29 | 0·03 | ... | 0·05 | 3·67 | 1·58 | 14·65 | 2·29 | 0·09 | ... | 0·29 | 23·94 |
| 1880 | ... | 0·21 | ... | ... | 0·58 | 1·74 | 4·45 | 4·41 | 1·24 | 0·39 | 0·02 | ... | 13·04 |
| 1881 | ... | ... | 0·13 | 0·09 | 0·08 | 0·41 | 7·51 | 6·67 | 1·78 | ... | ... | ... | 16·67 |
| 1882 | 0·49 | 0·02 | ... | ... | 0·13 | 0·17 | 14·35 | 4·19 | 3·82 | ... | ... | ... | 23·17 |
| 1883 | 0·25 | 0·05 | 0·01 | ... | 2·55 | 1·61 | 5·85 | 2·14 | 3·41 | 0·46 | ... | ... | 16·33 |
| Mean | **0·10** | **0·51** | **0·12** | **0·04** | **0·70** | **1·63** | **7·16** | **6·16** | **3·29** | **0·28** | **0·13** | **0·27** | **20·39** |
| 1884 | ... | ... | 0·04 | ... | 0·20 | 1·22 | 7·21 | 3·95 | 8·02 | ... | 0·20 | 0·02 | 20·86 |
| 1885 | 0·16 | ... | ... | ... | 1·00 | 4·55 | 11·33 | 3·73 | 0·02 | 0·10 | ... | 0·83 | 21·72 |
| 1886 | 0·07 | ... | ... | ... | 0·41 | 1·20 | 3·61 | 4·81 | ... | 0·51 | ... | ... | 10·61 |
| Mean | **0·10** | **0·44** | **0·10** | **0·03** | **0·67** | **1·73** | **7·19** | **5·87** | **3·20** | **0·27** | **0·12** | **0·28** | **20·00** |

No. 112A. MALPURA.

Latitude N. 26° 17′. Longitude E. 75° 27′. Elevation 1,100 feet.

Administration: RAJPUTANA.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1883 | ... | ... | ... | ... | ... | 0·72 | 6·36 | 1·78 | 1·73 | ... | ... | ... | 10·59 |
| 1884 | ... | ... | ... | ... | ... | 0·79 | 5·04 | 3·54 | 7·66 | ... | ... | ... | 17·03 |
| 1885 | ... | ... | ... | ... | 0·70 | 2·11 | 6·74 | 15·38 | 0·24 | 0·05 | ... | 0·52 | 25·74 |
| 1886 | 0·21 | ... | ... | ... | 1·11 | 0·91 | 6·05 | 6·39 | 0·10 | 0·21 | ... | ... | 14·98 |
| Mean | **0·05** | ... | ... | ... | **0·45** | **1·13** | **6·05** | **6·77** | **2·43** | **0·07** | ... | **0·13** | **17·08** |

No. 113. BEAWAR.

Latitude N. 26° 10′. Longitude E. 74° 26′. Elevation 1,559 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1856 | ? | ? | ? | 0·10 | ... | 1·70 | 11·60 | 5·30 | 1·20 | ... | ... | ... | ? |
| 1857 | 2·70 | 0·40 | ... | 0·30 | 0·30 | 7·40 | 1·20 | 11·50 | 5·20 | ... | ... | ... | 29·00 |
| 1858 | 1·00 | ... | ... | ... | ... | ... | 19·50 | 0·30 | 1·20 | ... | ... | ... | 22·00 |
| 1859 | 0·40 | ... | 0·60 | ... | ... | 2·10 | 10·60 | 6·50 | 3·80 | ... | ... | ... | 24·00 |
| 1860 | ... | 0·20 | ... | ... | 1·30 | 0·70 | 2·80 | 1·90 | 0·30 | ... | ... | ... | 7·20 |
| 1861 | ... | ... | ... | ... | 0·30 | 2·30 | 2·40 | 14·20 | ... | ... | ... | 0·20 | 19·40 |
| 1862 | ... | ... | ... | ... | ... | 2·10 | 23·50 | 7·30 | 9·20 | 0·60 | ... | ... | 42·70 |
| 1863 | ... | ... | ... | ... | ... | 9·50 | 10·90 | 2·50 | ... | ... | ... | ... | 22·90 |
| 1864 | ... | ... | ... | ... | ... | 0·30 | 9·30 | 10·20 | 0·90 | ... | ... | ... | 20·70 |
| 1865 | 0·30 | 0·10 | 2·10 | 1·00 | ... | 0·40 | 2·80 | 11·10 | 1·50 | ... | ... | ... | 19·30 |
| 1866 | ... | ... | ... | ... | ... | 1·10 | 3·80 | 9·00 | ... | 0·70 | ... | ... | 14·60 |
| 1867 | ... | ... | 0·20 | 0·20 | 0·50 | 1·20 | 4·40 | 8·00 | 0·80 | ... | ... | 1·60 | 16·90 |
| 1868 | ... | ... | 0·10 | 0·30 | 0·10 | 0·40 | 3·80 | 0·80 | ... | ... | ... | ... | 5·50 |
| 1869 | 0·50 | 0·30 | 0·60 | ... | ... | ... | 2·00 | 2·40 | 10·70 | 1·00 | ... | 0·20 | 17·70 |
| 1870 | ... | ... | 0·70 | ... | ... | 0·80 | 4·70 | 5·10 | 0·10 | 0·40 | ... | 1·00 | 12·80 |
| 1871 | ... | ... | ... | 0·32 | 0·75 | 8·53 | 6·94 | 0·85 | 1·71 | ... | 3·20 | 0·21 | 22·51 |
| 1872 | ... | ... | ... | ... | 0·30 | 0·90 | 3·70 | 15·80 | 0·49 | ... | ... | ... | 21·19 |
| 1873 | 0·10 | 0·20 | ... | ... | 1·85 | 0·74 | 18·75 | 8·06 | 1·71 | ... | ... | ... | 31·41 |
| 1874 | 0·07 | 0·05 | ... | ... | 0·02 | 1·68 | 10·74 | 6·48 | 1·75 | ... | ... | ... | 20·79 |
| 1875 | ... | 2·03 | ... | ... | 2·90 | 1·26 | 6·04 | 1·18 | 16·56 | ... | ... | 0·68 | 30·65 |
| 1876 | ... | ... | ... | 0·09 | 0·62 | 1·76 | 7·20 | 4·69 | 9·00 | 0·19 | 0·23 | ... | 23·78 |
| 1877 | ... | ... | ... | 0·50 | 0·18 | 2·78 | 8·59 | 0·43 | 0·41 | 2·52 | 1·12 | 0·66 | 17·19 |
| 1878 | ... | 0·09 | ... | ... | 0·28 | 2·98 | 4·58 | 12·64 | 0·29 | ... | ... | ... | 20·86 |
| 1879 | ... | ... | 0·10 | ... | 0·20 | 5·20 | 1·60 | 8·80 | 0·30 | ... | ... | 0·70 | 16·90 |
| 1880 | ... | ... | ... | ... | 0·60 | 1·10 | 6·90 | 3·30 | 3·50 | 0·60 | ... | ... | 16·00 |
| 1881 | ... | ... | 0·20 | 0·40 | ... | 0·10 | 10·50 | 6·80 | 2·10 | ... | ... | 0·50 | 20·60 |
| 1882 | 0·80 | 0·30 | ... | ... | 0·80 | 0·90 | 15·30 | 2·10 | 3·50 | ... | ... | ... | 23·70 |
| 1883 | 0·30 | ... | ... | ... | 1·16 | 0·60 | 5·00 | 0·30 | 5·20 | 0·20 | ... | ... | 12·76 |
| Mean | 0·23 | 0·14 | 0·17 | 0·11 | 0·43 | 2·09 | 7·83 | 5·98 | 2·91 | 0·22 | 0·16 | 0·21 | 20·48 |
| 1884 | ... | ... | ... | ... | ... | 2·40 | 7·10 | 4·30 | 10·85 | ... | 0·05 | ... | 24·70 |
| 1885 | 0·40 | ... | ... | ... | 0·70 | 3·10 | 5·10 | 9·90 | ... | ... | ... | 0·40 | 19·60 |
| 1886 | ... | ... | ... | ... | 0·10 | 1·65 | 3·70 | 3·95 | ... | 0·50 | ... | ... | 9·90 |
| Mean | 0·22 | 0·12 | 0·15 | 0·10 | 0·42 | 2·12 | 7·58 | 5·99 | 2·98 | 0·22 | 0·15 | 0·20 | 20·25 |

No. 114. TONK.

Latitude N. 26° 10′. Longitude E. 75° 51′. Elevation 1,468 feet

Administration: RAJPUTANA. Rainfall Province No. IV.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1872 | ... | ... | ... | ... | 0·85 | 1·30 | 4·50 | 21·45 | 2·30 | ... | ... | 0·01 | 30·41 |
| 1873 | ... | 0·30 | ... | ... | ... | 15·70 | 0·40 | 4·03 | ... | ... | ... | ... | 20·43 |
| 1874 | ... | ... | ... | ... | ... | 4·70 | 8·40 | 6·00 | 2·50 | ... | ... | ... | 21·60 |
| 1875 | ... | 0·90 | 1·00 | ... | 0·60 | 0·50 | 7·00 | 2·05 | 6·07 | ... | ... | ... | 18·12 |
| 1876 | ... | ... | ... | 0·06 | 0·05 | 0·08 | 18·03 | 2·02 | 3·04 | 0·90 | ... | ... | 24·18 |
| 1877 | ... | 0·30 | 0·30 | 0·30 | 0·50 | 0·50 | 3·60 | 1·50 | 0·60 | 6·20 | ... | 0·60 | 14·40 |
| 1878 | 0·10 | 0·10 | ... | 0·20 | 0·10 | ... | 9·04 | 12·40 | 2·71 | ... | ... | ... | 24·65 |
| 1879 | ... | 1·23 | 0·28 | ... | 0·18 | 6·18 | 3·66 | 27·51 | 2·24 | 3·08 | ... | ... | 44·36 |
| 1880 | ... | 0·19 | ... | ... | ... | 5·05 | 11·05 | 2·41 | 4·33 | 0·82 | ... | 1·02 | 24·87 |
| 1881 | 0·03 | 0·06 | 0·64 | 0·06 | 0·33 | 1·85 | 12·27 | 8·50 | 0·59 | ... | ... | 0·06 | 24·39 |
| 1882 | 0·42 | 0·20 | ... | 0·02 | 0·40 | 4·47 | 16·37 | 11·52 | 5·46 | ... | ... | ... | 38·86 |
| 1883 | 0·54 | ... | ... | ... | 2·28 | 2·60 | 4·58 | 3·87 | 5·14 | 0·60 | ... | ... | 19·61 |
| Mean | 0·09 | 0·27 | 0·19 | 0·05 | 0·44 | 2·27 | 9·52 | 8·30 | 3·25 | 0·97 | ... | 0·14 | 25·49 |
| 1884 | 0·16 | 0·06 | ... | ... | 0·95 | 3·19 | 7·57 | 6·11 | 5·95 | ... | ... | 0·42 | 23·51 |
| 1885 | 0·11 | ... | ... | 0·59 | 0·32 | 7·15 | 12·52 | 21·94 | 0·42 | 0·06 | ... | 0·96 | 44·07 |
| 1886 | 0·12 | ... | ... | ... | 1·06 | 3·60 | 6·63 | 9·89 | 0·38 | 0·21 | 0·13 | ... | 22·02 |
| Mean | 0·09 | 0·22 | 0·15 | 0·08 | 0·45 | 2·74 | 9·40 | 9·17 | 3·05 | 0·79 | 0·01 | 0·20 | 26·35 |

No. 115. DEOLI.

Latitude N. 25° 46′. Longitude E. 75° 25′. Elevation 1,122 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1861 | ... | ... | ... | ... | ... | 6·25 | 6·22 | 23·16 | 5·30 | ... | ... | ... | 40·93 |
| 1862 | 1·22 | ... | ... | 1·04 | 14·70 | 26·70 | ... | ... | ... | ... | ... | ... | 43·66 |
| 1863 | 0·50 | ... | 1·15 | ... | ... | ... | ... | 16·60 | 1·20 | ... | ... | ... | 19·45 |
| 1864 | 1·80 | ... | ... | ... | 1·50 | ... | 11·80 | 13·40 | 6·80 | ... | ... | ... | 35·30 |
| 1865 | Not on record. | | | | | | | | | | | | |
| 1866 | 1·20 | ... | ... | ... | 0·10 | 5·30 | 13·00 | 18·90 | ... | 3·20 | ... | 0·50 | 42·20 |
| 1867 | ... | ... | ... | ... | ... | 1·50 | 25·80 | ... | 7·60 | 1·20 | ... | 0·30 | 36·40 |
| 1868 | ... | ... | ... | 3·00 | 0·01 | 0·04 | 24·07 | 1·05 | ... | ... | ... | ... | 28·17 |
| 1869 | ... | 0·03 | ... | ... | 0·05 | 2·00 | 8·07 | 9·00 | 14·08 | ... | ... | ... | 33·23 |
| 1870 | ... | ... | ... | ... | ... | 3·10 | 20·40 | 30·70 | ... | ... | ... | ... | 54·20 |
| 1871 | ... | ... | ... | ... | ... | 28·10 | 14·70 | 10·29 | 2·10 | ... | 2·80 | 0·20 | 58·19 |
| 1872 | ... | ... | ... | ... | ... | 1·60 | 3·85 | 7·99 | 22·02 | 2·30 | ... | ... | 37·76 |
| 1873 | 0·70 | 0·60 | ... | ... | 0·90 | 0·75 | 15·89 | 10·87 | 7·22 | 0·50 | ... | ... | 37·33 |
| 1874 | ... | ... | ... | ... | ... | 1·80 | 19·10 | 10·00 | 3·00 | ... | ... | ... | 33·90 |
| 1875 | ... | 1·10 | ... | ... | 1·00 | 1·10 | 9·00 | 4·10 | 15·50 | ... | ... | 0·50 | 32·30 |
| 1876 | ... | ... | 0·20 | ... | 0·20 | 1·80 | 14·10 | 11·30 | 13·70 | 0·40 | 0·20 | ... | 41·90 |
| 1877 | ... | ... | 0·30 | ... | 1·00 | 1·70 | 3·31 | 0·48 | 2·52 | 3·00 | 0·02 | 2·09 | 14·42 |
| 1878 | ... | 0·10 | ... | 0·06 | 2·50 | 0·43 | 4·99 | 8·86 | 6·27 | ... | ... | ... | 23·21 |
| 1879 | 0·08 | 2·05 | 0·09 | ... | 0·04 | 2·57 | 1·62 | 27·79 | 1·01 | 0·52 | ... | 0·10 | 35·87 |

DEOLI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1880 | ... | 0·06 | ... | ... | 0·01 | 2·97 | 7·17 | 5·92 | 0·99 | 0·77 | ... | 0·02 | 17·91 |
| 1881 | 0·02 | ... | 0·79 | 0·13 | 0·17 | 2·36 | 17·85 | 10·45 | 1·59 | ... | ... | 0·17 | 33·53 |
| 1882 | 0·12 | 0·07 | ... | 0·01 | 0·78 | 3·98 | 20·69 | 7·01 | 3·27 | 0·14 | 0·06 | ... | 36·13 |
| 1883 | 0·29 | 0·06 | 1·08 | ... | 2·32 | 3·66 | 7·16 | 1·44 | 3·35 | ... | ... | ... | 19·36 |
| Mean | 0·27 | 0·19 | 0·16 | 0·19 | 1·15 | 4·44 | 11·31 | 10·42 | 5·34 | 0·55 | 0·14 | 0·18 | 34·34 |
| 1884 | 0·18 | ... | ... | ... | 0·06 | 2·04 | 11·65 | 5·70 | 3·53 | 0·03 | ... | ... | 23·19 |
| 1885 | ... | ... | ... | 0·09 | 0·40 | 5·81 | 9·30 | 18·30 | 1·72 | 0·09 | ... | 0·65 | 36·36 |
| 1886 | 0·02 | ... | 0·01 | ... | 1·86 | 2·96 | 9·94 | 6·04 | 1·52 | 0·30 | ... | ... | 22·65 |
| Mean | 0·25 | 0·16 | 0·14 | 0·17 | 1·10 | 4·34 | 11·19 | 10·37 | 4·97 | 0·50 | 0·12 | 0·18 | 33·49 |

No. 116. SHAHPOORA.

Latitude N. 25° 38′. Longitude E. 74° 58′. Elevation 1,400 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1873 | ... | ... | ... | ... | ... | ... | ... | 13·03 | 8·07 | 0·60 | ... | ... | 21·70 |
| 1874 | ... | ... | ... | ... | 0·20 | 2·08 | ... | 5·10 | 2·60 | ... | ... | ... | 9·98 |
| 1875 | ... | 1·10 | 1·10 | ... | 0·40 | 1·60 | 9·10 | 2·03 | 22·02 | ... | ... | ... | 37·35 |
| 1876 | ... | ... | ... | ... | 2·03 | 4·09 | ... | ... | ... | ... | 0·03 | ... | 6·15 |
| 1877 | ... | ... | ... | 0·15 | ... | ... | 4·25 | 0·41 | 0·98 | 2·31 | ... | 1·50 | 9·60 |
| 1878 | ... | 0·14 | ... | ... | 2·15 | 2·38 | 14·30 | 8·88 | 2·03 | ... | ... | ... | 29·88 |
| 1879 | ... | 1·47 | ... | ... | 0·10 | 6·01 | 2·04 | 23·20 | 3·73 | 0·65 | ... | 0·12 | 37·32 |
| 1880 | ... | 0·10 | ... | ... | 0·23 | 3·26 | 11·65 | 6·14 | 2·17 | 4·02 | ... | 0·05 | 27·62 |
| 1881 | 0·05 | ... | 0·86 | 0·28 | 0·03 | 1·71 | 10·29 | 10·22 | 1·88 | ... | ... | 0·45 | 25·77 |
| 1882 | 0·27 | 0·02 | ... | ... | 0·59 | 7·92 | 16·13 | 4·19 | 3·56 | ... | 0·64 | ... | 33·32 |
| 1883 | 0·50 | 0·01 | 0·34 | ... | 5·06 | 1·71 | 4·82 | 0·38 | 10·74 | 0·10 | ... | ... | 23·66 |
| Mean | 0·07 | 0·26 | 0·21 | 0·04 | 0·98 | 2·80 | 6·60 | 6·69 | 5·25 | 0·70 | 0·06 | 0·19 | 23·85 |
| 1884 | 0·21 | ... | ... | ... | 0·20 | 2·50 | 6·36 | 6·10 | 8·20 | 0·31 | ... | ... | 23·88 |
| 1885 | 0·07 | ... | ... | 0·28 | 1·10 | 3·89 | 7·61 | 10·19 | 0·34 | 0·07 | ... | 0·70 | 24·25 |
| 1886 | 0·03 | ... | ... | ... | 2·51 | 6·18 | 3·44 | 10·38 | 0·77 | 0·37 | ... | ... | 23·68 |
| Mean | 0·08 | 0·20 | 0·16 | 0·05 | 1·04 | 3·10 | 6·43 | 7·16 | 4·79 | 0·60 | 0·05 | 0·20 | 23·86 |

No. 117. JODHPORE.

Latitude N. 26° 18′. Longitude E. 73° 4′. Elevation 1,274 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1874 | ... | ... | ... | ... | ... | 0·13 | 0·03 | 4·83 | 1·05 | ... | ... | ... | 6·04 |
| 1875 | ... | 0·66 | ... | ... | 1·01 | 0·72 | 4·45 | 1·96 | 5·41 | ... | 0·10 | ... | 14·31 |
| 1876 | ... | 0·03 | 0·12 | 0·06 | ... | 0·61 | 4·69 | 7·86 | 10·63 | ... | ... | ... | 24·00 |
| 1877 | ... | 1·05 | 0·12 | 0·04 | 0·75 | ... | 3·00 | ... | 0·05 | 0·10 | 0·44 | ... | 5·55 |
| 1878 | ... | 0·02 | ... | ... | 0·50 | 1·25 | 8·10 | 9·24 | 0·35 | ... | ... | ... | 19·46 |
| 1879 | ... | ... | ... | ... | ... | 3·94 | 0·03 | 5·29 | 0·40 | ... | ... | 0·43 | 10·09 |
| 1880 | ... | 0·10 | ... | ... | 0·02 | 0·64 | 1·90 | 4·74 | 1·19 | 0·12 | ... | ... | 8·71 |
| 1881 | ... | 0·17 | 0·03 | 0·06 | 0·93 | 0·13 | 4·81 | 14·63 | 1·83 | ... | ... | ... | 22·59 |
| 1882 | 2·07 | ... | ... | ... | 0·37 | 0·62 | 5·44 | 3·50 | 0·73 | ... | ... | ... | 12·73 |
| 1883 | 0·66 | 0·12 | 0·21 | ... | 2·13 | 0·31 | 2·18 | 0·02 | 3·88 | 2·58 | ... | ... | 12·09 |
| Mean | 0·27 | 0·22 | 0·05 | 0·02 | 0·57 | 0·84 | 3·46 | 5·21 | 2·55 | 0·28 | 0·05 | 0·04 | 13·56 |
| 1884 | ... | 0·70 | ... | ... | 1·10 | 2·95 | 4·78 | 3·48 | 4·48. | ... | 0·04 | ... | 17·53 |
| 1885 | 0·74 | ... | 0·03 | 0·38 | 0·85 | 0·68 | 4·88 | 6·29 | 0·02 | ... | ... | 0·60 | 14·47 |
| 1886 | ... | 0·06 | ... | 0·06 | 0·71 | 5·02 | 2·02 | 5·29 | ... | ... | ... | ... | 13·16 |
| Mean | 0·27 | 0·22 | 0·04 | 0·05 | 0·64 | 1·31 | 3·56 | 5·16 | 2·31 | 0·22 | 0·04 | 0·08 | 13·90 |

No. 118. PACHPADRA.

Latitude N. 25° 55′. Longitude E. 72° 18′. Elevation 380 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1879 | P | P | P | P | P | P | P | P | 0·08 | ... | ... | 0·28 | P |
| 1880 | ... | 0·06 | ... | ... | ... | 1·03 | 1·93 | 6·03 | 1·26 | 0·14 | ... | 0·08 | 10·53 |
| 1881 | ... | 0·12 | 0·14 | 0·02 | 0·76 | 0·22 | 2·20 | 7·06 | 5·39 | ... | ... | ... | 15·91 |
| 1882 | 2·04 | ... | ... | ... | 2·18 | 0·55 | 5·89 | 2·92 | 1·36 | ... | ... | ... | 14·94 |
| 1883 | 0·50 | ... | 0·30 | ... | 2·01 | 0·20 | 1·46 | 0·03 | 4·46 | 0·05 | 0·04 | ... | 9·05 |
| Mean | 0·64 | 0·05 | 0·11 | 0·01 | 1·24 | 0·50 | 2·87 | 4·02 | 2·51 | 0·04 | 0·01 | 0·07 | 12·07 |
| 1884 | ... | ... | ... | ... | ... | P | P | 1·77 | 6·41 | 0·31 | ... | ... | P |
| 1885 | 0·38 | ... | ... | 0·01 | 0·81 | 1·51 | 3·03 | 3·11 | ... | ... | ... | ... | 8·85 |
| 1886 | ... | ... | 0·28 | ... | 0·20 | 1·88 | 5·46 | 4·29 | ... | ... | ... | ... | 12·11 |
| Mean | 0·42 | 0·03 | 0·10 | ... | 0·85 | 0·90 | 3·33 | 3·61 | 2·37 | 0·06 | 0·01 | 0·05 | 11·73 |

No. 118 A. BARMER.

Latitude N. 25° 43′. Longitude E. 71° 29′. Elevation 750 feet.

Administration: RAJPUTANA.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1883 | ? | ? | ? | ... | 0·14 | 0·28 | 2·18 | ... | 3·99 | ... | ... | ... | ? |
| 1884 | 0·16 | 0·04 | ... | ... | ... | 1·91 | 8·85 | 2·60 | 2·46 | ... | 0·04 | ... | 16·06 |
| 1885 | 0·16 | ... | ... | ... | 0·14 | 0·88 | 1·41 | 1·43 | 0·10 | ... | ... | ... | 4·12 |
| 1886 | ... | ... | 0·40 | 0·11 | ... | 3·12 | 2·36 | 4·13 | 0·80 | ... | ... | ... | 10·92 |
| Mean | 0·11 | 0·01 | 0·13 | 0·03 | 0·07 | 1·55 | 3·70 | 2·04 | 1·84 | ... | 0·01 | ... | 9·49 |

No. 118 B. JASOL.

Latitude N. 25° 48′. Longitude E. 72° 18′. Elevation 360 feet.

Administration: RAJPUTANA.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1884 | ... | ... | ... | ... | ... | 2·70 | 8·25 | 3·85 | 5·70 | ... | ... | ... | 20·50 |
| 1885 | 0·20 | ... | ... | ... | 0·55 | 1·27 | 2·85 | 3·02 | ... | ... | ... | ... | 7·89 |
| 1886 | ... | ... | 0·64 | ... | ... | 5·03 | 2·80 | 4·33 | ... | 0·15 | ... | ... | 12·95 |
| Mean | 0·07 | ... | 0·21 | ... | 0·18 | 3·00 | 4·63 | 3·73 | 1·90 | 0·05 | ... | ... | 13·77 |

No. 118 C. PALI.

Latitude N. 25° 32′. Longitude E. 73° 15′. Elevation 703 feet.

Administration: RAJPUTANA.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1884 | ... | ... | ... | ... | ... | 3·36 | 7·44 | 4·63 | 5·31 | ... | ... | ... | 20·74 |
| 1885 | 0·53 | ... | ... | ... | 1·03 | 0·26 | 2·39 | 4·68 | 0·14 | ... | ... | ... | 9·03 |
| 1886 | ... | ... | ... | ... | 0·13 | 6·66 | 2·21 | 7·18 | 0·50 | 0·68 | ... | ... | 17·36 |
| Mean | 0·18 | ... | ... | ... | 0·39 | 3·43 | 4·01 | 5·50 | 1·98 | 0·23 | ... | ... | 15·72 |

No. 119. ERINPURA.

Latitude N. 25° 9′. Longitude E. 73° 6′. Elevation 1,142 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1867 | ... | ... | ... | 0·10 | 0·12 | 0·02 | 4·14 | 3·86 | 3·12 | 0·48 | ... | 0·82 | 12·66 |
| 1868 | ... | ... | 0·02 | 0·10 | 0·04 | 0·22 | 2·98 | 1·96 | 0·10 | 0·46 | ... | ... | 5·88 |
| 1869 | 0·06 | 0·22 | 0·32 | ... | ... | ... | 7·60 | 2·18 | 2·54 | 0·26 | ... | ... | 13·18 |
| 1870 | ... | ... | ... | ... | 0·48 | 1·18 | 4·22 | 0·78 | 1·82 | 0·20 | ... | 0·60 | 9·28 |
| 1871 | ... | ... | ... | 0·06 | 0·32 | 0·64 | 4·62 | 1·52 | 0·16 | ... | 0 52 | 0·24 | 8·08 |
| 1872 | ... | ... | ... | ... | 0·50 | 2·04 | 1·54 | 10·00 | 1·25 | ... | ... | ... | 15·33 |
| 1873 | 0·10 | 1·40 | ... | ... | 0·80 | 1·80 | 3·80 | 4·90 | 1·60 | ... | ... | ... | 14·40 |
| 1874 | ... | 0·20 | ... | ... | 0·70 | 1·38 | 9·01 | 5·07 | 1·64 | ... | ... | ... | 18·00 |
| 1875 | Not on record. | | | | | | | | | | | | |
| 1876 | ... | ... | ... | ... | ... | ... | 6·00 | 4·40 | 14·15 | ... | 0·25 | ... | 24·80 |
| 1877 | ... | 0·60 | ... | ... | 1·65 | 0·75 | 4·00 | ... | 0·25 | 0·60 | 0·45 | 0·15 | 8·45 |
| 1878 | ... | ... | 0·20 | ... | 0·60 | 0·65 | 7·60 | 10·00 | 0·75 | ... | ... | ... | 19·80 |
| 1879 | ... | 1·80 | 0·10 | ... | ... | 4·05 | 1·15 | 8·60 | 0·70 | 0·20 | ... | 0·15 | 16·75 |
| 1880 | ... | ... | ... | ... | ... | 0·15 | 4·00 | 5·80 | 2·05 | 1·30 | ... | 0·30 | 13·00 |
| 1881 | ... | ... | 0·50 | 0·30 | ... | 0·20 | 10·25 | 6·20 | 3·30 | 0·10 | ... | 0·15 | 21·00 |
| 1882 | 0·70 | 0·50 | ... | ... | 0·65 | 0·20 | 8·40 | 1·60 | 4·85 | ... | 0·30 | ... | 17·20 |
| 1883 | 0·30 | ... | 0·05 | ... | 2·20 | 1·06 | 4·65 | ... | 5·94 | 2·49 | ... | ... | 16·69 |
| Mean | 0·07 | 0·30 | 0·07 | 0·04 | 0·50 | 0·90 | 5·25 | 4·18 | 2·76 | 0·38 | 0·10 | 0·15 | 14·70 |
| 1884 | ... | ... | ... | ... | 0·17 | 1·11 | 13·45 | 6·11 | 6·93 | ... | ... | ... | 27·77 |
| 1885 | 0·30 | ... | ... | ... | 0·42 | 1·41 | 4·29 | 5·16 | 1·99 | 0·20 | ... | ... | 13·77 |
| 1886 | 0·08 | ... | 0·64 | ... | ... | 9·02 | 7·37 | 8·72 | 2·64 | 1·98 | ... | ... | 39·45 |
| Mean | 0·08 | 0·26 | 0·10 | 0·03 | 0·46 | 1·36 | 5·74 | 4·57 | 2·94 | 0·44 | 0·08 | 0·13 | 16·19 |

No. 120. KOTAH.

Latitude N. 25° 10′. Longitude E. 75° 52′. Elevation 920 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1872 | ... | ... | ... | ... | 0·50 | 4·20 | 7·90 | 18·50 | 4·90 | ... | ... | 0·40 | 36·40 |
| 1873 | 0·20 | 1·00 | ... | ... | 0·40 | 2·80 | 14·30 | 11·10 | 10·10 | ... | ... | ... | 41·90 |
| 1874 | ... | ... | ... | ... | 1·00 | 3·50 | 14·50 | 6·40 | 1·50 | ... | ... | ... | 26·90 |
| 1875 | ... | 0·60 | ... | ... | 1·10 | ... | 12·50 | 4·70 | 8·40 | ... | ... | 0·20 | 27·50 |
| 1876 | ... | ... | ... | ... | 0·40 | 0·20 | 16·50 | 9·00 | 9·40 | 0·10 | 0·10 | ... | 35·70 |
| 1877 | ... | 1·10 | ... | ... | 1·30 | 2·00 | 2·80 | 1·00 | 3·60 | 3·30 | ... | 2·10 | 17·20 |
| 1878 | ... | ... | ... | ... | 4·20 | 1·24 | 4·43 | 10·29 | 4·84 | ... | ... | ... | 25·00 |
| 1879 | 0·12 | 0·96 | ... | ... | ... | 2·75 | 1·54 | 21·38 | 4·99 | 0·88 | ... | ... | 32·62 |

KOTAH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1880 | ... | 0·03 | ... | ... | 0·44 | 4·38 | 15·02 | 6·60 | 6·69 | 2·15 | ... | ... | 35·31 |
| 1881 | ... | ... | 0·54 | ... | 0·18 | 2·90 | 15·95 | 6·39 | 0·81 | 0·25 | ... | 0·10 | 27·12 |
| 1882 | 0·03 | 0·05 | ... | ... | 0·43 | 7·78 | 14·94 | 7·94 | 2·14 | ... | 0·05 | ... | 33·36 |
| 1883 | 0·48 | ... | 0·45 | ... | 1·68 | 4·62 | 4·78 | 5·06 | 10·83 | 0·24 | ... | ... | 28·14 |
| Mean | 0·07 | 0·31 | 0·08 | ... | 0·97 | 3·03 | 10·43 | 9·03 | 5·85 | 0·58 | 0·01 | 0·23 | 30·59 |
| 1884 | 1·11 | ... | ... | ... | 0·07 | 2·88 | 3·89 | 5·93 | 5·39 | ... | ... | 0·77 | 20·04 |
| 1885 | ... | ... | ... | 0·29 | 0·98 | 6·47 | 11·44 | 9·83 | 0·14 | 0·21 | ... | 0·82 | 30·18 |
| 1886 | 0·29 | ... | 0·03 | ... | 3·91 | 7·78 | 7·21 | 9·69 | 1·74 | 0·33 | 0·32 | ... | 31·30 |
| Mean | 0·15 | 0·25 | 0·07 | 0·02 | 1·11 | 3·57 | 9·85 | 8·92 | 5·16 | 0·50 | 0·03 | 0·29 | 29·92 |

No. 121. JHALRAPATAN.

Latitude N. 24° 35′. Longitude E. 76° 15′. Elevation 1,242 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | ... | ... | ... | ... | 1·05 | 6·00 | 49·10 | 8·70 | 2·83 | ... | 1·35 | 0·40 | 69·43 |
| 1872 | ... | ... | ... | ... | 0·80 | 0·60 | 8·70 | 13·70 | 1·70 | ... | ... | ... | 25·50 |
| 1873 | 0·10 | 3·00 | ... | 0·10 | 0·80 | 0·15 | 11·50 | 13·05 | 18·25 | ... | ... | ... | 46·95 |
| 1874 | ... | ... | ... | ... | 0·25 | 3·10 | 27·80 | 14·85 | 3·47 | ... | ... | ... | 49·47 |
| 1875 | ... | 0·75 | ... | ... | 1·00 | 2·70 | 11·50 | 4·35 | 5·95 | 0·05 | ... | 0·50 | 26·80 |
| 1876 | ... | ... | 0·10 | ... | ... | 1·56 | 25·81 | 7·30 | 11·97 | ... | ... | ... | 46·74 |
| 1877 | 0·10 | 1·35 | ... | ... | 0·36 | 3·25 | 3·17 | 2·30 | 2·67 | 1·30 | ... | 3·45 | 17·95 |
| 1878 | 0·80 | ... | 0·05 | ... | 2·50 | 10·65 | 12·63 | 7·88 | 5·12 | ... | ... | ... | 39·63 |
| 1879 | 0·28 | 0·75 | ... | ... | ... | 4·78 | 5·38 | 15·02 | 3·84 | 3·00 | ... | 0·01 | 33·06 |
| 1880 | ... | ... | ... | ... | 0·48 | 1·16 | 13·23 | 7·26 | 11·97 | 1·78 | ... | 0·30 | 36·18 |
| 1881 | ... | 0·14 | 2·27 | ... | 0·05 | 6·66 | 14·01 | 6·59 | 1·72 | ... | ... | 0·20 | 31·64 |
| 1882 | ... | 0·05 | ... | 0·04 | 0·65 | 6·11 | 26·90 | 6·93 | 5·02 | ... | ... | 0·07 | 45·77 |
| 1883 | 0·64 | ... | 0·42 | ... | 1·29 | 6·38 | 4·87 | 4·94 | 14·90 | 0·19 | ... | ... | 33·63 |
| Mean | 0·15 | 0·46 | 0·22 | 0·02 | 0·71 | 4·08 | 16·51 | 8·68 | 6·88 | 0·49 | 0·10 | 0·38 | 38·67 |
| 1884 | 1·29 | ... | ... | ... | 0·04 | 3·75 | 15·83 | 3·54 | 6·63 | 0·17 | ... | 0·52 | 31·77 |
| 1885 | ... | ... | ... | 0·10 | 0·33 | 11·34 | 17·21 | 15·57 | 0·46 | 2·25 | ... | 1·17 | 48·43 |
| 1886 | 0·02 | ... | ... | ... | 0·47 | 7·74 | 12·31 | 8·69 | 0·59 | 2·17 | 0·21 | 0·09 | 32·29 |
| Mean | 0·20 | 0·38 | 0·18 | 0·02 | 0·63 | 4·75 | 16·25 | 8·79 | 6·07 | 0·68 | 0·10 | 0·42 | 38·47 |

No. 122. OODEYPORE.

Latitude N. 24° 35′. Longitude E. 73° 43′. Elevation 2,469 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1874 | ... | ... | ... | ... | ... | ... | 11·90 | 9·00 | 2·60 | ... | ... | ... | 23·50 |
| 1875 | ... | 0·80 | ... | ... | 1·19 | 1·02 | 11·30 | 3·20 | 24·65 | 0·80 | ... | 0·20 | 43·16 |
| 1876 | ... | ... | ... | ... | ... | 2·10 | 12·30 | 3·63 | 8·84 | ... | ... | ... | 26·87 |
| 1877 | ... | ... | ... | ... | 0·70 | 1·20 | 3·11 | 1·62 | 3·95 | 2·80 | ... | ... | 13·38 |
| 1878 | ... | 0·05 | 0·05 | ... | 0·10 | 2·13 | 12·67 | 16·85 | 4·60 | ... | ... | ... | 36·45 |
| 1879 | ... | 1·10 | ... | ... | ... | 4·40 | 3·35 | 9·83 | 4·56 | 0·35 | ... | ... | 23·59 |
| 1880 | ... | ... | ... | ... | 0·90 | 3·95 | 7·17 | 6·63 | 5·83 | 2·35 | ... | 0·33 | 27·16 |
| 1881 | ... | ... | 0·36 | ... | 0·61 | 0·50 | 11·18 | 4·08 | 3·51 | ? | ? | ? | 20·24? |
| 1882 | 0·11 | ... | ... | ... | 0·72 | 5·28 | 8·76 | 0·83 | 5·13 | ... | 0·01 | ... | 20·84 |
| 1883 | ? | ? | ... | ... | 1·90 | 1·80 | 5·42 | 3·16 | 8·26 | 0·37 | ... | ... | 20·91? |
| Mean | 0·01 | 0·22 | 0·04 | ... | 0·61 | 2·24 | 8·72 | 5·88 | 7·19 | 0·74 | ... | 0·06 | 25·71 |
| 1884 | 0·05 | 0·03 | ... | ... | ... | 4·43 | 6·55 | 13·16 | 7·28 | ... | ... | ... | 31·50 |
| 1885 | ... | ... | ... | 0·08 | 1·21 | 2·44 | 11·41 | 11·39 | 1·53 | ... | ... | ... | 28·06 |
| 1886 | ... | ... | 0·09 | 0·50 | 0·16 | 3·88 | 9·09 | 14·14 | 4·58 | 0·82 | ... | ... | 33·26 |
| Mean | 0·01 | 0·17 | 0·04 | 0·04 | 0·57 | 2·55 | 8·79 | 7·50 | 6·56 | 0·62 | ... | 0·04 | 26·89 |

No. 123. MOUNT ABU.

Latitude N. 24° 36′. Longitude E. 72° 45′. Elevation 3,945 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1860 | 0·55 | 0·14 | ... | ... | 1·00 | 6·09 | 29·44 | 17·05 | 1·50 | 0·10 | ... | ... | 55·87 |
| 1861 | ... | ... | ... | ... | 0·90 | 1·35 | 13·33 | 26·80 | 2·47 | ... | ... | ... | 44·85 |
| 1862 | ... | ... | ... | ... | ... | 5·29 | 33·61 | 31·12 | 13·06 | 39·54 | 0·40 | ... | 123·02 |
| 1863 | 1·04 | ... | 0·45 | ... | 1·33 | 32·74 | 33·34 | 20·93 | 6·78 | 2·05 | ... | ... | 98·66 |
| 1864 | 0·03 | 1·53 | ... | ... | 0·08 | 2·57 | 19·86 | 24·86 | 2·78 | ... | 0·19 | ... | 51·90 |
| 1865 | 0·87 | ... | 1·95 | 0·18 | ... | 2·90 | 6·89 | 39·47 | 2·00 | 0·33 | ... | ... | 54·59 |
| 1866 | 0·14 | ... | ... | 0·08 | 0·92 | 3·12 | 8·42 | 60·42 | 2·22 | 0·09 | ... | ... | 75·41 |
| 1867 | ... | ... | ... | ... | 0·40 | 0·90 | 6·92 | 33·18 | 8·85 | ... | 0·01 | 1·15 | 51·41 |
| 1868 | ... | 0·06 | ... | ... | ... | 7·11 | 5·85 | 8·74 | 1·12 | 0·50 | ... | 0·14 | 23·52 |
| 1869 | 0·35 | 0·90 | 0·60 | ... | 0·06 | 0·51 | 38·00 | 15·57 | 30·07 | ... | ... | 1·32 | 87·38 |
| 1870 | ... | ... | ... | ... | 0·07 | 10·90 | 26·59 | 11·65 | 0·37 | 1·62 | ... | 0·77 | 51·97 |
| 1871 | ... | ... | ... | 0·53 | 6·84 | 3·25 | 11·68 | 29·69 | 0·64 | ... | 3·40 | 0·30 | 56·33 |
| 1872 | ... | ... | ... | ... | ... | 8·42 | 16·18 | 26·79 | 7·03 | ... | ... | ... | 58·42 |
| 1873 | 0·53 | 0·98 | 0·22 | ... | 2·27 | 0·56 | 14·96 | 14·94 | 1·53 | ... | ... | ... | 35·99 |
| 1874 | ... | ... | ... | ... | 0·72 | 11·25 | 24·65 | 28·17 | 5·67 | ... | ... | 0·20 | 70·66 |
| 1875 | ... | 1·63 | ... | ... | 1·00 | ... | 49·41 | 7·99 | 50·90 | 0·90 | ... | 0·10 | 111·93 |

MOUNT ABU—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | ... | ... | ... | 1·03 | 19·63 | 7·69 | 14·64 | ... | ... | ... | 42·99 |
| 1877 | ... | 1·08 | ... | 0·03 | 2·71 | 1·32 | 4·91 | 9·41 | 5·80 | 1·68 | 0·27 | 1·00 | 19·21 |
| 1878 | 0·09 | 0·16 | ... | 0·19 | 1·09 | 3·28 | 28·23 | 33·72 | 3·55 | ... | ... | ... | 70·31 |
| 1879 | ... | 2·91 | 0·04 | ... | 0·08 | 6·40 | 14·98 | 41·04 | 4·99 | 1·06 | ... | 0·02 | 71·52 |
| 1880 | ... | 0·05 | ... | ... | 0·42 | 4·03 | 10·79 | 20·12 | 7·60 | 5·20 | 0·30 | 0·74 | 49·25 |
| 1881 | ... | 0·07 | 0·07 | 0·11 | 0·20 | ... | 47·17 | 37·46 | 17·19 | ... | ... | 0·26 | 102·53 |
| 1882 | 1·14 | ... | ... | 0·03 | 0·97 | 4·26 | 38·12 | 9·96 | 4·20 | 0·12 | 0·09 | ... | 58·89 |
| 1883 | 0·47 | ... | 0·36 | ... | 4·96 | 3·12 | 25·53 | 0·75 | 12·15 | 2·15 | 0·04 | ... | 49·53 |
| Mean | **0·22** | **0·40** | **0·15** | **0·05** | **1·08** | **5·04** | **22·02** | **22·86** | **8·63** | **2·31** | **0·20** | **0·25** | **63·21** |
| 1884 | 0·22 | 0·01 | ... | ... | 0·64 | 6·05 | 36·33 | 16·03 | 34·00 | ... | ... | 0·07 | 93·35 |
| 1885 | 0·47 | ... | 0·03 | 0·03 | 0·57 | 4·18 | 6·38 | 22·90 | 1·32 | 0·36 | ... | ... | 36·24 |
| 1886 | 0·06 | ... | 0·23 | ... | 0·97 | 7·29 | 27·67 | 21·11 | 2·28 | 0·04 | ... | ... | 59·65 |
| Mean | **0·22** | **0·35** | **0·14** | **0·04** | **1·04** | **5·11** | **22·18** | **22·54** | **9·06** | **2·06** | **0·17** | **0·22** | **63·13** |

No. 124. KOTRA.

Latitude N. 24° 22′. Longitude E. 73° 13′. Elevation 2,400 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ... | ... | ... | ... | ... | 9·05 | 13·75 | 5·18 | 0·20 | 0·46 | ... | ... | 28·64 |
| 1871 | ... | ... | ... | ... | 2·25 | 4·32 | 4·85 | 8·02 | ... | ... | 1·45 | 0·25 | 21·14 |
| 1872 | ... | ... | ... | ... | 0·30 | 3·75 | 9·85 | 13·50 | 3·90 | ... | ... | ... | 31·30 |
| 1873 | ... | ... | ... | ... | 0·12 | 0·45 | 7·77 | 8·56 | 0·40 | ... | ... | ... | 17·30 |
| 1874 | 0·20 | ... | ... | ... | 1·10 | 6·79 | 15·16 | 14·78 | 2·21 | ... | ... | ... | 40·24 |
| 1875 | ... | 1·56 | ... | ... | 1·00 | 0·25 | 20·14 | 5·82 | 28·87 | ... | ... | ... | 57·64 |
| 1876 | ... | ... | ... | 0·10 | 0·05 | 0·20 | 17·85 | 7·75 | 11·15 | 0·10 | ... | ... | 37·20 |
| 1877 | ... | 0·40 | ... | 0·25 | 0·82 | 3·80 | 5·60 | 0·85 | 2·90 | 2·80 | ... | ... | 17·42 |
| 1878 | ... | ... | ... | ... | 1·85 | 2·43 | 14·83 | 22·71 | 2·00 | ... | ... | ... | 43·82 |
| 1879 | ... | 1·35 | ... | ... | 0·12 | 3·36 | 2·18 | 11·95 | 1·56 | ... | ... | ... | 20·52 |
| 1880 | ... | 0·08 | ... | ... | 0·07 | 2·35 | 7·71 | 10·87 | 10·27 | 3·39 | ... | 0·60 | 35·34 |
| 1881 | ... | 0·03 | ... | 0·01 | 0·23 | 0·68 | 19·36 | 12·20 | 6·78 | 0·50 | ... | 0·48 | 40·27 |
| 1882 | 0·33 | ... | ... | ... | 0·15 | 1·36 | 15·66 | 3·58 | 2·11 | ... | ... | ... | 23·19 |
| 1883 | 0·16 | ... | 0·24 | ... | 2·87 | 2·83 | 13·62 | 2·21 | 12·33 | 1·01 | ... | ... | 35·27 |
| Mean | **0·05** | **0·24** | **0·02** | **0·03** | **0·78** | **2·97** | **12·02** | **9·14** | **6·05** | **0·59** | **0·10** | **0·10** | **32·09** |
| 1884 | 0·10 | 0·07 | ... | ... | 0·20 | 3·00 | 14·94 | 8·44 | 13·20 | 0·12 | ... | 0·31 | 40·38 |
| 1885 | 0·14 | ... | ... | 0.02 | 0·36 | 3·85 | 6·94 | 14·40 | 1·51 | ... | ... | 0·04 | 27·26 |
| 1886 | ... | ... | 0·04 | ... | 0·12 | 5·07 | 18·47 | 12·96 | 3·20 | 4·47 | ... | ... | 44·33 |
| Mean | **0·05** | **0·21** | **0·02** | **0·02** | **0·68** | **3·15** | **12·28** | **9·63** | **6·03** | **0·76** | **0·09** | **0·10** | **33·02** |

No. 125. KHERWARA.

Latitude N. 23° 59′. Longitude E. 73° 39′. Elevation 2,400 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1857 | ... | ... | ... | ... | ... | 7·95 | 5·28 | 9·71 | 9·55 | ... | ... | ·^ | 32·49 |
| 1858 | ... | ... | ... | ... | ... | 2·18 | 10·15 | 1·31 | 3·56 | ... | ... | ... | 17·20 |
| 1859 | 0·60 | ... | ... | 0·60 | ... | 6·18 | 10·21 | 5·63 | 2·41 | ... | ... | ... | 25·63 |
| 1860 | ... | ... | ... | ... | ... | 0·62 | 6·90 | 5·18 | ... | ... | ... | ... | 12·70 |
| 1861 | ... | ... | ... | ... | ... | 4·35 | 5·96 | 12·79 | 0·86 | 2·00 | ... | ... | 25·96 |
| 1862 | ... | ... | ... | ... | ... | 6·10 | 14·74 | 5·18 | 5·00 | 4·43 | 0·84 | ... | 36·29 |
| 1863 | ... | ... | ... | ... | ... | 8·36 | 3·62 | 8·11 | 1·89 | 0·09 | ... | ... | 22·07 |
| 1864 | ... | 1·53 | ... | ... | 0·20 | 2·60 | 19·73 | 6·65 | 2·21 | 0·30 | ... | ... | 33·22 |
| 1865 | 0·54 | ... | 0·96 | ... | 0·25 | ... | 2·75 | 14·89 | 2·18 | 0·04 | ... | ... | 21·61 |
| 1866 | ... | ... | ... | ... | ... | 4·81 | 8·87 | 10·65 | 0·40 | ... | ... | ... | 24·73 |
| 1867 | ... | ... | ... | ... | ... | 2·20 | 5·80 | 7·62 | 7·57 | 0·50 | ... | 0·52 | 24·21 |
| 1868 | ... | ... | ... | ... | ... | 3·77 | 6·62 | 18·74 | ... | ... | ... | ... | 29·13 |
| 1869 | 0·29 | ... | ... | ... | ... | 4·68 | 4·04 | 6·41 | 8·40 | 2·32 | 0·20 | 0·13 | 26·47 |
| 1870 | ... | ... | ... | ... | 0·02 | 13·15 | 10·58 | 2·89 | 1·35 | 0·05 | ... | ... | 28·04 |
| 1871 | ... | ... | ... | ... | P | P | P | 10·39 | 2·15 | 0·51 | ... | ... | P |
| 1872 | ... | ... | ... | ... | 0·13 | 1·93 | 8·93 | 8·58 | 3·20 | ... | ... | 0·24 | 23·01 |
| 1873 | 0·42 | 0·54 | ... | ... | 0·26 | 1·80 | 14·31 | 6·33 | 2·82 | ... | ... | ... | 26·48 |
| 1874 | ... | ... | ... | ... | 0·78 | 2·82 | 6·75 | 10·94 | 3·74 | ... | ... | ... | 25·03 |
| 1875 | ... | 1·25 | ... | ... | 0·44 | 1·49 | 13·58 | 3·69 | 28·04 | 0·23 | ... | ... | 48·72 |
| 1876 | ... | ... | 0·01 | ... | ... | 0·98 | 13·67 | 6·19 | 12·55 | ... | ... | ... | 33·40 |
| 1877 | ... | 1·20 | ... | 0·15 | 1·69 | 3·28 | 5·56 | 0·70 | 3·52 | 4·16 | ... | 1·04 | 21·30 |
| 1878 | ... | 0·02 | ... | ... | 0·47 | 5·06 | 14·67 | 14·91 | 6·48 | ... | ... | ... | 41·61 |
| 1879 | ... | 0·38 | ... | ... | ... | 5·85 | 3·41 | 8·68 | 3·30 | 0·09 | ... | ... | 21·71 |
| 1880 | ... | ... | 0·01 | ... | 0·50 | 3·53 | 6·16 | 6·82 | 9·42 | 2·35 | 0·01 | 0·01 | 28·81 |
| 1881 | ... | 0·04 | ... | ... | 0·53 | 2·25 | 12·63 | 10·50 | 3·54 | 0·31 | ... | 0·30 | 30·10 |
| 1882 | 0·03 | ... | ... | ... | 0·53 | 5·10 | 8·89 | 2·39 | 3·68 | ... | ... | ... | 20·62 |
| 1883 | 0·24 | ... | ... | ... | 6·04 | 3·32 | 8·58 | 2·01 | 2·82 | 0·45 | ... | ... | 23·46 |
| Mean | 0·08 | 0·18 | 0·04 | 0·03 | 0·46 | 4·01 | 8·94 | 7·70 | 4·84 | 0·66 | 0·04 | 0·08 | 27·06 |
| 1884 | ... | ... | ... | ... | ... | 2·15 | 9·24 | 10·54 | 10·71 | ... | ... | ... | 32·64 |
| 1885 | 0·13 | ... | ... | ... | 0·10 | 2·10 | 6·08 | 12·32 | 1·33 | ... | ... | ... | 22·06 |
| 1886 | ... | ... | ... | ... | 0·33 | 8·07 | 7·93 | 10·66 | 1·14 | 2·01 | ... | ... | 29·54 |
| Mean | 0·08 | 0·17 | 0·03 | 0·03 | 0·42 | 4·02 | 8·82 | 8·03 | 4·79 | 0·66 | 0·04 | 0·07 | 27·16 |

No. 126. BANSWARA.

Latitude N. 23° 33′. Longitude E. 74° 29′. Elevation 1,500 feet.

Administration: RAJPUTANA. Rainfall Province No. IV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1873 | ... | ... | ... | ... | ... | ... | 10·64 | 14·84 | ... | ... | ... | ... | 25·48 |
| 1874 | ... | ... | ... | ... | ... | 6·54 | 10·90 | 10·80 | 12·35 | ... | ... | ... | 40·59 |
| 1875 | ... | ... | ... | ... | 0·30 | 1·15 | 21·70 | 7·36 | 29·15 | ... | ... | ... | 59·66 |
| 1876 | ... | ... | ... | ... | ... | ... | 13·91 | P | P | ... | ... | ... | P |

BANSWARA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | 4·38 | 1·19 | ... | ... | ... | 1·60 | 8·37 | 0·88 | 3·23 | 1·65 | ... | 4·93 | 26·23 |
| 1878 | 0·83 | ... | ... | ... | ... | 3·39 | 7·45 | 16·02 | 11·70 | ... | ... | ... | 39·39 |
| 1879 | ... | 0·83 | ... | ... | ... | 9·78 | 2·95 | 17·45 | 4·47 | ... | ... | ... | 35·48 |
| 1880 | ... | ... | ... | ... | ... | 3·80 | 11·25 | 15·25 | 27·10 | 1·10 | ... | ... | 58·50 |
| 1881 | ... | ... | ... | ... | ... | 2·30 | 23·70 | 12·26 | 9·00 | 0·97 | ... | 0·70 | 48·93 |
| 1882 | ... | 0·05 | ... | ... | ... | 8·51 | 20·50 | 6·56 | 6·89 | ... | ... | ... | 42·51 |
| 1883 | 0·65 | ... | ... | ... | 3·50 | 2·29 | 10·44 | 5·68 | 6·69 | 0·80 | ... | ... | 30·05 |
| Mean | 0·53 | 0·19 | ... | ... | 0·35 | 3·58 | 12·89 | 10·71 | 11·06 | 0·41 | ... | 0·51 | 40·23 |
| 1884 | 0·80 | ... | 0·03 | ... | 0·32 | 7·36 | 13·85 | 12·85 | 13·53 | 2·31 | ... | ... | 51·05 |
| 1885 | ... | ... | ... | 0·04 | ... | 10·99 | 6·36 | 10·68 | 2·68 | 4·87 | ... | ... | 35·62 |
| 1886 | ... | ... | ... | ... | 0·37 | 8·11 | 10·98 | 17·22 | 2·09 | 3·68 | ... | ... | 42·45 |
| Mean | 0·47 | 0·15 | ... | ... | 0·32 | 4·70 | 12·36 | 11·37 | 9·91 | 1·10 | ... | 0·40 | 40·78 |

No. 127. MORAR.

Latitude N. 26° 14′. Longitude E. 78° 17′. Elevation 528 feet.

Administration: CENTRAL INDIA. Rainfall Province No. V.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | 0·25 | 0·10 | 0·70 | ... | 1·20 | 2·25 | 24·25 | 6·30 | 10·70 | ... | ... | ... | 45·75 |
| 1873 | 0·11 | 0·55 | 0·21 | ... | 0·76 | ... | 17·10 | 9·37 | 15·34 | 0·52 | ... | 0·13 | 44·09 |
| 1874 | ... | ... | ... | ... | ... | 5·05 | 12·95 | 15·70 | 5·40 | ... | ... | ... | 39·10 |
| 1875 | 0·20 | 2·10 | ... | ... | 0·05 | 0·20 | 6·50 | 5·40 | 12·20 | ... | ... | 0·50 | 27·15 |
| 1876 | ... | ... | 0·15 | ... | ... | 1·70 | 11·15 | 5·85 | 8·50 | 0·15 | ... | ... | 27·50 |
| 1877 | 0·40 | 1·00 | 0·70 | 1·35 | 0·20 | 1·10 | 0·90 | 0·45 | 0·60 | 3·95 | 0·25 | 3·25 | 14·15 |
| 1878 | 0·55 | 0·05 | ... | 0·15 | 2·10 | ... | 5·26 | 14·29 | 4·70 | ... | ... | 0·12 | 27·22 |
| 1879 | 0·30 | ... | ... | ... | ... | 5·87 | 7·72 | 15·05 | 5·73 | 0·34 | ... | 0·08 | 35·09 |
| 1880 | ... | ... | ... | ... | ... | 4·02 | 4·71 | 3·54 | 4·45 | 0·03 | ... | ... | 16·75 |
| 1881 | ... | 0·09 | 0·89 | ... | 0·02 | 7·35 | 16·53 | 26·87 | 0·92 | ... | ... | 0·05 | 52·72 |
| 1882 | 0·14 | 0·19 | ... | ... | 0·15 | 4·25 | 12·65 | 7·99 | 1·78 | ... | ... | 0·05 | 27·20 |
| 1883 | 1·56 | 0·09 | 0·69 | ... | 1·95 | 0·96 | 6·19 | 6·07 | 3·40 | ... | ... | ... | 20·91 |
| Mean | 0·29 | 0·35 | 0·28 | 0·13 | 0·54 | 2·73 | 10·49 | 9·74 | 6·14 | 0·42 | 0·02 | 0·35 | 31·48 |
| 1884 | 0·23 | 0·25 | 0·10 | ... | 0·07 | 2·41 | 5·38 | 18·26 | 5·52 | 1·04 | ... | 0·06 | 33·32 |
| 1885 | 0·15 | ... | ... | 0·20 | 1·33 | 8·98 | 6·85 | 12·03 | 0·05 | 0·40 | ... | 1·20 | 31·19 |
| 1886 | 0·41 | ... | ... | ... | 0·17 | 1·83 | 15·80 | 6·81 | 0·90 | 3·13 | ... | 0·01 | 29·06 |
| Mean | 0·29 | 0·29 | 0·23 | 0·11 | 0·53 | 3·06 | 10·26 | 10·27 | 5·35 | 0·64 | 0·02 | 0·36 | 31·41 |

No. 128. GOONA.

Latitude N. 24° 39′. Longitude E. 77° 22′. Elevation 1,617 feet.

Administration: CENTRAL INDIA. Rainfall Province No. V.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1871 | 2·60 | 0·10 | ... | 0·10 | 3·03 | 29·60 | 13·35 | 16·95 | 4·35 | ... | 0·20 | 0·30 | 70·58 |
| 1872 | 0·20 | ... | 1·15 | 0·50 | 0·30 | 5·99 | 10·28 | 17·02 | 2·97 | ... | ... | ... | 38·41 |
| 1873 | 0·19 | 0·76 | ... | ... | 0·02 | 2·80 | 11·16 | 19·50 | 14·73 | ... | ... | ... | 49·16 |
| 1874 | ... | ... | ... | ... | 0·12 | 10·31 | 14·20 | 15·55 | 3·25 | ... | ... | ... | 43·43 |
| 1875 | ... | ... | ... | ... | 0·49 | 3·30 | 12·18 | 8·29 | 6·74 | 0·18 | ... | ... | 31·18 |
| 1876 | ... | ... | ... | ... | ... | 3·93 | 27·50 | 3·67 | 5·17 | ... | ... | ... | 40·27 |
| 1877 | ... | 1·46 | ... | ... | 0·61 | 4·44 | 5·16 | 3·06 | 0·02 | 1·80 | 4·26 | ... | 20·81 |
| 1878 | ... | ... | ... | 0·14 | 1·98 | 6·03 | 10·64 | 8·06 | 5·59 | ... | ... | ... | 32·44 |
| 1879 | 0·28 | 0·01 | ... | ... | 0·30 | 5·11 | 6·42 | 15·51 | 6·75 | 0·82 | ... | ... | 35·20 |
| 1880 | ... | ... | ... | ... | 0·03 | 2·65 | 11·61 | 5·99 | 5·66 | 0·14 | 0·07 | 0·03 | 26·18 |
| 1881 | ... | 0·40 | 1·17 | ... | 0·03 | 5·74 | 8·35 | 16·31 | 2·25 | ... | ... | 0·17 | 34·42 |
| 1882 | ... | ... | ... | ... | 0·10 | 4·20 | 21·58 | 11·52 | 4·46 | ... | ... | 0·11 | 41·97 |
| 1883 | 1·30 | ... | ... | ... | 1·08 | 6·86 | 3·68 | 1·72 | 16·41 | 0·55 | ... | ... | 31·60 |
| Mean | 0·35 | 0·21 | 0·18 | 0·06 | 0·62 | 7·00 | 12·01 | 11·01 | 6·03 | 0·27 | 0·35 | 0·05 | 38·14 |
| 1884 | 0·51 | ... | 0·06 | ... | 0·23 | 4·00 | 12·23 | 17·87 | 7·49 | 1·71 | ... | 0·06 | 44·16 |
| 1885 | 0·27 | ... | ... | 0·54 | 0·29 | 8·64 | 11·64 | 15·67 | 2·35 | 1·94 | ... | 1·29 | 42·63 |
| 1886 | 0·31 | 0·11 | 0·18 | 0·01 | 0·33 | 3·85 | 10·18 | 12·27 | 1·18 | 3·89 | 0·33 | 0·24 | 32·88 |
| Mean | 0·35 | 0·18 | 0·16 | 0·08 | 0·56 | 6·72 | 11·89 | 11·81 | 5·59 | 0·69 | 0·30 | 0·14 | 38·47 |

No. 129. NEEMUCH.

Latitude N. 24° 25′. Longitude E. 75° 0′. Elevation 1,639 feet.

Administration: CENTRAL INDIA. Rainfall Province No. V.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1860 | ... | ... | ... | ... | 0·31 | 1·65 | 11·79 | 15·68 | 3·83 | 0·23 | ... | 0·33 | 33·82 |
| 1861 | 0·04 | ... | ... | 0·09 | 0·80 | 6·28 | 15·61 | 17·93 | 5·88 | ... | ... | ... | 46·63 |
| 1862 | 0·03 | ... | ... | ... | 0·12 | 8·51 | 24·34 | 3·16 | 7·85 | 1·45 | 0·46 | ... | 45·92 |
| 1863 | 0·21 | ... | ... | ... | 0·21 | 7·60 | 15·62 | 5·71 | 7·30 | ... | 0·12 | ... | 36·77 |
| 1864 | ... | 1·60 | ... | 0·08 | 1·58 | 1·55 | 16·31 | 18·62 | 8·74 | 0·08 | ... | ... | 48·56 |
| 1865 | 0·21 | ... | 1·75 | 0·13 | 0·10 | 0·80 | 1·77 | 22·30 | 1·29 | 0·69 | ... | 0 05 | 29·09 |
| 1866 | 0·12 | ... | ... | 0·32 | 0·06 | 11·58 | 10·16 | 8·89 | ... | ... | ... | ... | 31·13 |
| 1867 | ... | ... | ... | 0·90 | 0·36 | 0·36 | 8·76 | 18·31 | 3·42 | 1·61 | ... | ... | 33·72 |
| 1868 | ... | 0·04 | ... | 0·12 | 0·08 | 1·99 | 9·57 | 4·30 | 0·59 | 0·03 | ... | ... | 16·72 |
| 1869 | 0·19 | | ... | ... | ... | 0·55 | 9·86 | 6·61 | 14·52 | 0·50 | ... | 0·33 | 32·56 |
| 1870 to 1876 | Not on record. | | | | | | | | | | | | |
| 1877 | P | P | ... | ... | 0·59 | 2·25 | 2·76 | ... | 2·70 | 8·24 | ... | 1·90 | 18·44 P |
| 1878 | 0·24 | ... | 0·05 | ... | 0·15 | 1·46 | 15·85 | 15·18 | 10·78 | ... | ... | ... | 43·71 |
| 1879 | 0·08 | 0·40 | ... | ... | ... | 3·25 | 3·98 | 11·07 | 4·87 | 0·47 | ... | ... | 24·12 |
| 1880 | ... | ... | ... | ... | 1·38 | 4·99 | 15·19 | 8·19 | 9·48 | 0·20 | ... | 0·10 | 39·53 |

NEEMUCH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1881 | ... | 0·59 | 0·18 | ... | 0·40 | 3·72 | 15·87 | 10·61 | 2·82 | ... | ... | 0·97 | 35·16 |
| 1882 | 0·04 | 0·14 | ... | ... | 1·06 | 4·52 | 21·16 | 5·58 | 8·76 | 0·16 | ... | 0·39 | 41·81 |
| 1883 | 0·27 | ... | 0·31 | ... | 2·75 | 3·51 | 4·35 | 6·60 | 11·21 | 1·27 | ... | ... | 30·27 |
| Mean | 0·09 | 0·17 | 0·14 | 0·10 | 0·59 | 3·80 | 11·94 | 10·51 | 6·12 | 0·88 | 0·03 | 0·24 | 34·61 |
| 1884 | 0·38 | 0·02 | ... | ... | 0·07 | 2·14 | 6·48 | 8·84 | 5·32 | 0·13 | ... | 0·44 | 23·82 |
| 1885 | ... | ... | ... | 0·03 | 0·17 | 3·41 | 9·78 | 8·01 | ... | 1·21 | ... | 0·24 | 22·85 |
| 1886 | ... | ... | ... | ... | 0·66 | 7·77 | 5·62 | 13·19 | 1·16 | 2·98 | ... | 0·14 | 31·52 |
| Mean | 0·10 | 0·15 | 0·11 | 0·08 | 0·54 | 3·89 | 11·24 | 10·44 | 5·53 | 0·96 | 0·03 | 0·24 | 33·31 |

No. 130. AGAR.

Latitude N. 23° 44′. Longitude E. 76° 4′. Elevation 1,675 feet.

Administration: CENTRAL INDIA. Rainfall Province No. V.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ... | ... | ... | ... | ... | 1·90 | 23·05 | 3·70 | 1·50 | ... | ... | ... | 30·15 |
| 1869 | ... | ... | ... | ... | ... | 1·14 | 5·46 | 2·58 | 17·55 | 0·90 | ... | 0·89 | 28·52 |
| 1870 | ... | ... | 0·41 | 0·60 | ... | 6·80 | 9·16 | 8·17 | 5·10 | 0·35 | ... | ... | 30·59 |
| 1871 | P | P | P | P | P | P | P | P | 12·03 | P | 1·09 | P | P |
| 1872 | ... | ... | ... | ... | 0·70 | 3·50 | 7·50 | 21·70 | 7·70 | ... | ... | ... | 41·10 |
| 1873 | 1·00 | 4·00 | ... | ... | 0·42 | 2·52 | 6·45 | 15·20 | 9·00 | ... | 0·04 | ... | 38·63 |
| 1874 | ... | ... | ... | ... | 0·58 | 8·56 | 14·86 | 19·49 | 2·17 | 0·05 | ... | ... | 45·71 |
| 1875 | ... | 0·42 | ... | 0·04 | 0·93 | 6·85 | 19·23 | 11·06 | 12·54 | ... | ... | 0·10 | 51·17 |
| 1876 | ... | ... | ... | ... | ... | 1·17 | 16·74 | 11·07 | 13·75 | ... | ... | ... | 42·73 |
| 1877 | ... | ... | ... | ... | 0·47 | 3·24 | 4·37 | 3·58 | 1·02 | 0·73 | ... | 3·40 | 16·81 |
| 1878 | ... | ... | ... | ... | 0·74 | 3·31 | 17·83 | 10·86 | 6·59 | ... | ... | ... | 39·33 |
| 1879 | ... | 0·91 | ... | ... | 0·02 | 6·99 | 2·54 | 14·70 | 5·70 | 2·15 | ... | ... | 33·01 |
| 1880 | ... | ... | ... | ... | 0·31 | 3·84 | 6·90 | 6·96 | 16·57 | 0·68 | 0·06 | ... | 35·32 |
| 1881 | ... | 0·35 | 0·18 | ... | 0·08 | 7·46 | 21·59 | 6·95 | 3·23 | 0·12 | ... | 0·41 | 40·37 |
| 1882 | ... | ... | ... | ... | 1·04 | 6·27 | 11·41 | 5·71 | 6·70 | ... | ... | ... | 31·13 |
| 1883 | 0·48 | ... | ... | ... | 2·71 | 7·34 | 8·27 | 5·09 | 12·48 | 3·09 | ... | ... | 39·46 |
| Mean | 0·10 | 0·38 | 0·04 | 0·04 | 0·53 | 4·73 | 11·69 | 9·79 | 8·35 | 0·54 | 0·07 | 0·32 | 36·58 |
| 1884 | 1·72 | ... | 0·02 | ... | 0·18 | 3·06 | 10·17 | 5·31 | 8·08 | 0·59 | ... | 0·35 | 29·48 |
| 1885 | 0·20 | ... | ... | 0·56 | 0·35 | 6·03 | 12·88 | 10·02 | 0·30 | 0·86 | ... | 3·07 | 34·27 |
| 1886 | 0·03 | ... | 0·12 | ... | 2·09 | 3·01 | 6·40 | 9·87 | 1·35 | 1·48 | ... | 0·25 | 24·60 |
| Mean | 0·19 | 0·32 | 0·04 | 0·07 | 0·59 | 4·61 | 11·38 | 9·56 | 7·55 | 0·61 | 0·06 | 0·47 | 35·45 |

No. 131. BHOPAL.

Latitude N. 23° 16′. Longitude E. 77° 26′. Elevation 1,670 feet.

Administration: CENTRAL INDIA. Rainfall Province No. V.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | August. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ... | ... | ... | ... | ... | 0·50 | 17·60 | 6·00 | 3·50 | ... | ... | ... | 27·60 |
| 1869 | ... | ... | ... | ... | ... | 3·10 | 15·80 | 7·00 | 12·30 | 2·80 | ... | ... | 41·00 |
| 1870 | 0·40 | ... | ... | ... | ... | 7·20 | 30·00 | 9·90 | 13·60 | 0·50 | ... | ... | 61·60 |
| 1871 | 0·90 | ... | ... | ... | ... | 13·20 | 19·40 | 23·80 | 24·20 | ... | 1·40 | ... | 84·90 |
| 1872 | ... | ... | ... | ... | ... | 1·80 | 9·00 | 18·70 | 6·90 | ... | ... | ... | 36·40 |
| 1873 | 0·60 | 1·10 | ... | ... | ... | 0·50 | 14·60 | 13·60 | 15·40 | ... | ... | ... | 45·80 |
| 1874 | ... | ... | ... | ... | 0·90 | 14·30 | 26·50 | 17·00 | 7·00 | ... | ... | ... | 65·70 |
| 1875 | ... | ... | ... | ... | ... | 6·20 | 27·10 | 11·20 | 9·00 | 1·10 | ... | 1·30 | 55·90 |
| 1876 | ... | ... | ... | ... | ... | 4·60 | 30·80 | 8·70 | 16·20 | ... | ... | ... | 60·30 |
| 1877 | 5·00 | ... | ... | ... | ... | 5·90 | 9·00 | 6·80 | 0·40 | 2·80 | ... | 2·60 | 32·50 |
| 1878 | ... | 1·10 | ... | 0·20 | 1·70 | 2·00 | 18·35 | 13·45 | 4·65 | ... | ... | ... | 41·45 |
| 1879 | ... | 0·40 | ... | ... | 0·50 | 6·55 | 5·95 | 15·70 | 6·50 | 7·75 | ... | ... | 43·35 |
| 1880 | ... | ... | ... | ... | 0·32 | 3·96 | 11·20 | 9·05 | 10·34 | 2·40 | 2·83 | ... | 40·10 |
| 1881 | ... | ... | 1·04 | ... | ... | 11·40 | 23·21 | 7·89 | 6·27 | 0·60 | 0·23 | ... | 50·64 |
| 1882 | ... | ... | ... | ... | 0·42 | 5·55 | 17·32 | 13·56 | 6·15 | 0·10 | 0·38 | ... | 43·48 |
| 1883 | 0·39 | ... | ... | ... | *1·47 | 9·00 | 13·00 | 6·47 | 17·06 | 2·03 | ... | ... | 49·42 |
| Mean | 0·46 | 0·16 | 0·07 | 0·01 | 0·33 | 6·11 | 18·05 | 11·80 | 9·97 | 1·26 | 0·30 | 0·24 | 48·76 |
| 1884 | 2·05 | ... | ... | ... | ... | 2·55 | 19·22 | 15·01 | 13·34 | 0·39 | ... | 0·22 | 52·78 |
| 1885 | 1·05 | ... | 0·03 | 0·32 | 0·13 | 14·29 | 26·30 | 15·99 | 1·27 | 1·07 | ... | 6·59 | 67·04 |
| 1886 | ... | ... | ... | ... | 0·48 | 9·96 | 15·52 | 6·00 | 1·19 | 5·42 | ... | 0·93 | 39·50 |
| Mean | 0·55 | 0·14 | 0·06 | 0·03 | 0·31 | 6·56 | 18·41 | 11·89 | 9·22 | 1·42 | 0·25 | 0·61 | 49·45 |

No. 132. RUTLAM.

Latitude N. 23° 21′. Longitude E. 75° 7′. Elevation 1,563 feet.

Administration: CENTRAL INDIA. Rainfall Province No. V.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | August. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ... | ... | ... | ... | ... | 7·63 | 8·91 | 9·04 | ... | ... | ... | ... | 25·58 |
| 1869 | ... | ... | ... | ... | ... | 0·92 | 5·85 | 7·53 | 17·89 | 1·93 | ... | ... | 34·12 |
| 1870 | ... | ... | ... | ... | 0·33 | 9·36 | 15·68 | 8·24 | 3·39 | 1·21 | ... | ... | 38·21 |
| 1871 | ... | ... | ... | ... | ... | 13·18 | 9·13 | 16·39 | 5·70 | ... | ... | ... | 44·40 |
| 1872 | ... | ... | ... | ... | ... | 4·55 | 11·34 | 17·88 | 4·98 | ... | ... | ... | 38·75 |
| 1873 | 1·05 | 3·03 | ... | ... | 0·15 | 0·95 | 12·47 | 12·28 | 11·13 | ... | ... | ... | 41·06 |
| 1874 | ... | ... | ... | ... | ... | 5·71 | 23·81 | 12·63 | 10·83 | ... | ... | ... | 52·98 |
| 1875 | ... | 0·27 | 0·02 | ... | ... | 8·35 | 18·52 | 6·23 | 19·89 | ... | ... | ... | 53·28 |
| 1876 | ... | ... | ... | ... | ... | 3·05 | 15·89 | 16·94 | 15·45 | ... | ... | ... | 51·33 |
| 1877 | 1·21 | ... | ... | ... | 1·23 | 6·25 | 6·09 | 7·84 | 1·46 | 0·83 | ... | 1·41 | 26·32 |
| 1878 | 0·18 | ... | ... | ... | 0·30 | 0·28 | 10·68 | 16·66 | 6·85 | ... | ... | ... | 34·95 |

RULTAM—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1879 | ... | 0·83 | ... | ... | 0·50 | 6·87 | 3·76 | 12·74 | 6·95 | 2·72 | ... | ... | 34·37 |
| 1880 | ... | ... | ... | ... | 0·99 | 3·04 | 5·94 | 10·68 | 22·10 | 3·56 | 0·14 | ... | 46·45 |
| 1881 | ... | 0·20 | 0·06 | 0·05 | 1·60 | 2·16 | 24·92 | 6·93 | 6·19 | 0·91 | ... | 0·65 | 43·67 |
| 1882 | ... | 0·02 | ... | ... | 0·05 | 10·31 | 12·91 | 3·65 | 12·43 | ... | ... | ... | 39·37 |
| 1883 | 0·58 | ... | ... | ... | 2·37 | 8·97 | 14·25 | 7·57 | 11·38 | 1·25 | ... | ... | 46·37 |
| Mean | 0·19 | 0·27 | 0·01 | ... | 0·47 | 5·72 | 12·51 | 10·83 | 9·79 | 0·78 | 0·01 | 0·13 | 40·71 |
| 1884 | 0·78 | ... | ... | ... | 0·02 | 6·59 | 13·52 | 4·35 | 8·69 | 0·64 | ... | 0·05 | 34·64 |
| 1885 | ... | ... | ... | 0·21 | 0·83 | 5·43 | 4·58 | 15·48 | 0·19 | 1·64 | ... | 0·15 | 28·51 |
| 1886 | ... | ... | ... | ... | 0·91 | 6·51 | 5·95 | 12·93 | 3·23 | 7·10 | ... | 0·01 | 36·64 |
| Mean | 0·20 | 0·23 | ... | 0·01 | 0·49 | 5·80 | 11·80 | 10·84 | 8·88 | 1·15 | 0·01 | 0·12 | 39·53 |

No. 133. INDORE.

Latitude N. 22° 44′. Longitude E. 75° 53′. Elevation 1,822 feet.

Administration: CENTRAL INDIA. Rainfall Province No. V.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ... | ... | ... | ... | 0·26 | 3·13 | 12·03 | 10·82 | 5·93 | ... | ... | ... | 32·17 |
| 1869 | ... | ... | ... | ... | 1·05 | 4·87 | 12·99 | 5·87 | 10·59 | 1·18 | ... | 0·84 | 37·39 |
| 1870 | 2·50 | ... | 0·31 | ... | ... | 21·48 | 14·33 | 5·77 | 7·36 | 0·75 | ... | ... | 52·50 |
| 1871 | 0·50 | ... | ... | ... | 0·10 | 7·26 | 3·39 | 7·65 | 7·42 | 0·03 | 0·81 | 0·12 | 27·28 |
| 1872 | 0·07 | ... | ... | 1·95 | ... | 6·35 | 16·33 | 6·32 | 3·35 | ... | ... | 0·12 | 34·49 |
| 1873 | 0·51 | 2·92 | ... | ... | 0·18 | 5·67 | 8·60 | 12·34 | 6·09 | ... | ... | ... | 36·31 |
| 1874 | ... | ... | ... | 0·16 | 0·16 | 7·57 | 19·36 | 4·16 | 3·64 | 0·04 | ... | ... | 35·09 |
| 1875 | ... | 0·13 | ... | 0·04 | 0·55 | 3·04 | 9·75 | 6·17 | 12·08 | ... | ... | 0·05 | 31·81 |
| 1876 | ... | ... | ... | ... | ... | 3·03 | 10·64 | 11·74 | 14 11 | 0·15 | ... | ... | 39·67 |
| 1877 | 1·65 | 0·79 | ... | ... | ... | 6·02 | 6·83 | 5·04 | 0·93 | 3·10 | ... | 0·75 | 25·11 |
| 1878 | ... | ... | 0·01 | ... | ... | 3·45 | 13·53 | 12·67 | 15·09 | 0·57 | ... | ... | 45·32 |
| 1879 | ... | 0·61 | ... | ... | 2·29 | 6·16 | 3·45 | 7·79 | 14·67 | 3·29 | ... | ... | 38·26 |
| 1880 | ... | ... | ... | ... | 0·85 | 2·58 | 2·71 | 19·69 | 16·21 | 3·18 | 1·24 | ... | 46·46 |
| 1881 | ... | 0·18 | 0·03 | ... | 0·28 | 3·92 | 15·14 | 5·48 | 6·12 | 0·07 | 0·14 | 0·43 | 31·79 |
| 1882 | ... | ... | ... | ... | 0·67 | 12·81 | 12·89 | 3·36 | 10·83 | ... | 0·59 | ... | 41·15 |
| 1883 | 0·18 | ... | ... | ... | 0·37 | 6·90 | 7·49 | 4·01 | 4·48 | 2·33 | ... | ... | 25·76 |
| Mean | 0·34 | 0·29 | 0·02 | 0·13 | 0·42 | 6·52 | 10·59 | 8·06 | 8·68 | 0·92 | 0·17 | 0·14 | 36·28 |
| 1884 | 1·44 | 0·11 | ... | ... | 0·02 | 5·70 | 13·68 | 5·20 | 11·42 | 1·28 | ... | 0·69 | 39·54 |
| 1885 | 0·04 | ... | ... | 0·20 | 0·56 | 8·35 | 5·56 | 6·89 | 2 41 | 2·50 | 0·06 | 0·53 | 27·10 |
| 1886 | 0·02 | ... | ... | 0·05 | 4·24 | 11·11 | 7·93 | 6·36 | 0·59 | 3·67 | ... | 0·36 | 34·33 |
| Mean | 0·36 | 0·26 | 0·02 | 0·13 | 0·61 | 6·81 | 10·35 | 7·75 | 8·07 | 1·17 | 0·15 | 0·20 | 35·88 |

No. 134. SIRDARPORE.

Latitude N. 22° 36′. Longitude E. 75° 3′. Elevation 1,900 feet.

Administration: CENTRAL INDIA. Rainfall Province No. V.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1868 | ... | ... | ... | ... | ... | 6·13 | 16·56 | 8·92 | 0·90 | 0·05 | ... | ... | 32·56 |
| 1869 | ... | 0·06 | 0·06 | ... | ... | 1·20 | 12·60 | 5·05 | 11·02 | 1·93 | 0·09 | 1·61 | 33·62 |
| 1870 | 1·28 | ... | 0·18 | ... | 0·06 | 8·78 | 11·73 | 6·72 | 6·59 | 1·40 | ... | 0·37 | 37·11 |
| 1871 | 0·33 | ... | ... | ... | ... | 8·00 | 4·15 | 9·10 | 4·25 | ... | 1·13 | 0·15 | 27·11 |
| 1872 | ... | ... | ... | 0·09 | ... | 6·65 | 15·72 | 5·48 | 6·57 | ... | ... | 0·01 | 34·52 |
| 1873 | 0·21 | 3·67 | ... | ... | ... | 3·07 | 10·53 | 10·72 | 4·65 | ... | ... | ... | 32·85 |
| 1874 | ... | ... | ... | ... | 0·42 | 9·45 | 8·01 | 2·95 | 9·01 | ... | ... | ... | 29·84 |
| 1875 | ... | 0·14 | 0·02 | ... | 0·15 | 3·58 | 7·27 | 3·95 | 10·63 | ... | ... | ... | 25·74 |
| 1876 | ... | ... | ... | ... | ... | 1·04 | 5·83 | 7·46 | 8·82 | ... | ... | ... | 23·15 |
| 1877 | 1·07 | 0·37 | ... | ... | ... | 3·93 | 4·96 | 2·64 | 2·06 | 1·42 | ... | ... | 16·45 |
| 1878 | ... | ... | ... | ... | ... | 3·43 | 20·63 | 20·15 | 8·82 | 0·63 | ... | ... | 53·66 |
| 1879 | ... | 0·30 | ... | ... | 1·47 | 7·50 | 1·83 | 7·74 | 9·68 | 2·01 | ... | ... | 30·53 |
| 1880 | ... | ... | ... | ... | 0·33 | 2·02 | 4·46 | 7·29 | 18·39 | 0·86 | 0·44 | ... | 33·79 |
| 1881 | ... | ... | ... | ... | 0·35 | 6·58 | 21·03 | 3·28 | 6·00 | 0·16 | ... | 0·25 | 37·65 |
| 1882 | ... | ... | ... | ... | ... | 12·32 | 10·74 | 1·58 | 15·58 | 1·10 | ... | ... | 41·32 |
| 1883 | ... | ... | ... | ... | 0·43 | 3·97 | 12·07 | 2·13 | 8·47 | 1·55 | ... | ... | 28·62 |
| **Mean** | **0·18** | **0·28** | **0·02** | **0·01** | **0·20** | **5·48** | **10·51** | **6·57** | **8·22** | **0·69** | **0·10** | **0·15** | **32·42** |
| 1884 | 1·06 | ... | ... | ... | ... | 3·64 | 12·90 | 3·99 | 18·26 | 0·72 | ... | ... | 40·57 |
| 1885 | ... | ... | ... | 0·12 | 0·07 | 6·08 | 2·42 | 5·98 | 1·01 | 2·41 | 0·21 | 0·37 | 18·67 |
| 1886 | ... | ... | ... | ... | 0·58 | 7·12 | 8·79 | 6·18 | 0·71 | 6·10 | ... | ... | 29·48 |
| **Mean** | **0·21** | **0·24** | **0·01** | **0·01** | **0·20** | **5·50** | **10·12** | **6·38** | **7·97** | **1·07** | **0·10** | **0·15** | **31·96** |

No. 135. MANPUR.

Latitude N. 22° 26′. Longitude E. 75° 39′. Elevation 1,888 feet.

Administration: CENTRAL INDIA. Rainfall Province No. V.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1872 | ... | ... | ... | 0·30 | ... | 6·15 | 11·25 | 10·10 | 9·90 | ... | ... | 0·24 | 37·94 |
| 1873 | 0·94 | 5·25 | ... | ... | 1·46 | 4·75 | 7·88 | 12·26 | 7·70 | 0·20 | ... | ... | 40·44 |
| 1874 | ... | ... | ... | ... | ... | 6·10 | 17·45 | 6·60 | 5·70 | ... | ... | ... | 35·85 |
| 1875 | ... | ... | ... | ... | 1·10 | 7·40 | 9·95 | 8·20 | 15·70 | ... | ... | 0·20 | 42·55 |
| 1876 | ... | ... | ... | ... | ... | 1·70 | 12·05 | 7·85 | 12·10 | ... | ... | ... | 33·70 |
| 1877 | 2·00 | ... | ... | ... | ... | 10·45 | 8·90 | 7·90 | 0·60 | 0·90 | 0·20 | ... | 30·95 |
| 1878 | ... | ... | ... | ... | ... | 4·20 | 18·00 | 15·05 | 8·55 | 0·30 | ... | ... | 46·10 |
| 1879 | ... | ... | ... | ... | 1·00 | 7·50 | 6·05 | 16·45 | 13·25 | 1·65 | ... | ... | 45·90 |
| 1880 | ... | ... | ... | ... | 1·25 | 2·10 | 2·95 | 7·10 | 16·05 | 4·10 | 0·05 | ... | 33·60 |
| 1881 | ... | 0·50 | 0·35 | ... | 0·75 | 4·35 | 27·50 | 5·55 | 5·30 | 0·80 | ... | 0·60 | 45·70 |
| 1882 | ... | ... | ... | ... | ... | 18·90 | 17·70 | 1·70 | 20·90 | ... | ... | ... | 59·20 |
| **Mean** | **0·27** | **0·52** | **0·03** | **0·03** | **0·51** | **6·69** | **12·70** | **8·98** | **10·52** | **0·72** | **0·02** | **0·09** | **41·08** |

No. 136. NOWGONG.

Latitude N. 25° 2'. Longitude E. 79° 29'. Elevation 757 feet.

Administration: CENTRAL INDIA. Rainfall Province No. V.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1868 | ? | ? | 0·50 | ... | 1·60 | 2·30 | 12·50 | 3·20 | 6·50 | 0·10 | ... | 0·20 | ? |
| 1869 | 0·10 | 0·20 | 0·50 | 0·30 | ... | 0·60 | 33·20 | 6·90 | 8·90 | 6·20 | ... | 1·00 | 57·90 |
| 1870 | ... | ... | ... | 0·10 | ... | 7·30 | 8·90 | 10·70 | 7·10 | 1·20 | ... | ... | 35·30 |
| 1871 | 0·10 | 0·20 | 0·50 | 0·70 | 1·00 | 12·40 | 12·90 | 13·00 | 11·80 | ... | ... | 0·10 | 52·70 |
| 1872 | 0·70 | 0·40 | ... | 0·50 | ... | 9·30 | 15·10 | 21·50 | 5·10 | ... | ... | ... | 52·60 |
| 1873 | 1·40 | ... | ... | ... | ... | ... | 18·20 | 11·70 | 12·00 | ... | ... | ... | 43·30 |
| 1874 | ... | ... | ... | ... | ... | 11·40 | 10·30 | 25·10 | 4·90 | ... | ... | ... | 51·70 |
| 1875 | ... | ... | ... | ... | ... | 2·00 | 21·60 | 14·30 | 11·60 | ... | ... | ... | 49·50 |
| 1876 | ... | 1·20 | ... | ... | ... | 1·70 | 28·20 | 10·60 | 5·70 | 0·10 | ... | ... | 47·50 |
| 1877 | 1·20 | 0·90 | 0·50 | ... | 0·10 | 1·39 | 2·68 | 4·32 | 4·07 | 1·90 | ... | 0·50 | 17·56 |
| 1878 | 3·61 | 0·27 | ... | 0·02 | 0·47 | 0·89 | 4·89 | 9·50 | 7·49 | ... | ... | 0·04 | 27·18 |
| 1879 | 0·04 | 0·18 | 0·08 | ... | 0·62 | 1·78 | 7·77 | 19·44 | 5·16 | 2·37 | ... | ... | 37·44 |
| 1880 | ... | 0·03 | ... | ... | 0·09 | 2·24 | 19·70 | 1·39 | 6·31 | 1·42 | 0·93 | 0·50 | 32·61 |
| 1881 | ... | 0·33 | 0·96 | ... | 0·12 | 2·47 | 13·93 | 19·78 | 1·20 | 0·03 | ... | ... | 38·82 |
| 1882 | ... | 0·17 | ... | 0·06 | 0·32 | 19·93 | 18·70 | 8·14 | 3·73 | 0·15 | 0·41 | ... | 51·61 |
| 1883 | 1·51 | ... | 0·06 | ... | 0·96 | 4·30 | 12·51 | 1·59 | 4·57 | 0·77 | ... | ... | 26·27 |
| Mean | 0·58 | 0·26 | 0·19 | 0·11 | 0·33 | 5·00 | 15·07 | 11·32 | 6·63 | 0·89 | 0·08 | 0·15 | 40·61 |
| 1884 | 0·29 | 0·59 | ... | ... | 0·21 | 6·91 | 17·16 | 35·46 | 11·61 | 1·28 | ... | 0·05 | 73·56 |
| 1885 | 0·39 | ... | ... | 0·12 | 0·47 | 7·70 | 15·62 | 14·43 | 0·85 | 0·53 | 0·45 | 4·30 | 44·86 |
| 1886 | 0·27 | 0·07 | 0·97 | ... | 0·89 | 3·41 | 17·09 | 8·75 | 4·82 | 4·94 | ... | 3·33 | 44·54 |
| Mean | 0·53 | 0·26 | 0·21 | 0·09 | 0·36 | 5·16 | 15·32 | 12·63 | 6·50 | 1·10 | 0·09 | 0·53 | 42·78 |

No. 137. NAGODE.

Latitude N. 24° 34'. Longitude E. 80° 38'. Elevation 1,100 feet.

Administration: CENTRAL INDIA. Rainfall Province No. V.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1863 | ... | ... | ... | 0·04 | 0·30 | 2·89 | 22·18 | 7·24 | 5·82 | 5·00 | ... | ... | 43·47 |
| 1864 | 0·93 | 0·68 | ... | 0·25 | 1·57 | 1·64 | 4·50 | 10·01 | 4·25 | ... | 0·73 | ... | 24·56 |
| 1865 | 1·73 | 1·17 | 0·50 | 0·38 | 0·12 | 1·83 | 19·97 | 11·97 | 7·62 | 0·23 | ... | 0·20 | 45·72 |
| 1866 | 0·42 | 0·34 | 0·03 | 0·16 | ... | 4·60 | 11·74 | 9·48 | 4·52 | ... | ... | ... | 31·29 |
| 1867 | ... | 0·61 | 0·93 | 0·33 | 0·12 | 10·22 | 16·23 | 8·60 | 23·30 | 3·98 | ... | 0·34 | 64·66 |
| 1868 | 1·10 | 0·27 | 0·25 | 0·08 | 0·06 | 2·23 | 9·11 | 1·63 | 6·54 | 0·05 | ... | 0·20 | 21·52 |
| 1869 | 0·76 | 0·01 | 0·41 | 0·46 | 0·17 | 1·64 | 13·49 | 6·19 | 8·42 | 14·13 | ... | 0·73 | 46·11 |
| 1870 | 0·51 | 0·35 | 0·71 | 0·63 | ... | 4·02 | 8·00 | 19·09 | 11·03 | 9·08 | ... | ... | 53·42 |
| 1871 | 0·70 | 0·90 | ... | ... | 2·30 | 6·40 | 17·70 | 8·20 | 12·60 | ... | ... | 0·60 | 49·40 |
| 1872 | 0·60 | ... | 0·50 | 0·30 | 0·10 | 5·20 | 16·70 | 18·90 | 4·80 | ... | ... | ... | 47·10 |
| 1873 | ... | ... | ... | ... | 0·30 | 1·50 | 26·70 | 19·20 | 7·20 | ... | ... | ... | 54·90 |
| 1874 | 0·10 | ... | ... | ... | 0·10 | 13·20 | 15·80 | 17·00 | 5·60 | 0·40 | ... | ... | 52·20 |
| 1875 | ... | 1·00 | ... | ... | ... | 11·80 | 44·50 | 19·40 | 6·30 | ... | ... | 1·40 | 84·40 |
| 1876 | ... | ... | ... | ... | ... | 2·90 | 37·50 | 11·90 | 5·30 | 0·90 | ... | ... | 58·50 |

NAGODE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | 4·70 | 1·50 | 0·20 | 1·40 | 0·80 | 2·10 | 7·10 | 14·30 | 3·90 | 4·10 | ... | 0·30 | 40·40 |
| 1878 | 3·30 | ... | 0·10 | 0·90 | 1·10 | 1·80 | 3·90 | 12·40 | 3·90 | 0·90 | 0·20 | ... | 28·50 |
| 1879 | ... | 0·10 | ... | ... | ... | 5·70 | 16·50 | 16·40 | 5·10 | 0·80 | ... | ... | 44·60 |
| 1880 | ... | 0·80 | ... | ... | ... | 2·30 | 12·20 | 1·60 | 3·30 | 1·90 | 1·10 | 0·70 | 23·90 |
| 1881 | ... | 0·30 | 0·90 | ... | 0·30 | 2·30 | 15·70 | 27·70 | 2·10 | ... | ... | ... | 49·30 |
| 1882 | ... | 0·05 | ... | ... | 0·81 | 13·49 | 10·81 | 7·92 | 3·27 | 4·02 | 1·00 | ... | 41·37 |
| 1883 | 2·05 | ... | ... | ... | 1·01 | 5·33 | 15·48 | 5·59 | 7·65 | 1·07 | ... | ... | 38·18 |
| Mean | **0·80** | **0·38** | **0·22** | **0·22** | **0·44** | **4·91** | **16·47** | **12·13** | **6·79** | **2·22** | **0·14** | **0·21** | **44·93** |
| 1884 | 0·04 | 0·49 | 0·27 | ... | 0·33 | 5·38 | 14·09 | 18·72 | 16·71 | ... | ... | ... | 56·03 |
| 1885 | 0·52 | ... | ... | 0·06 | 0·40 | 7·60 | 18·60 | 21·89 | 1·51 | 0·88 | ... | 5·40 | 56·86 |
| 1886 | ... | ... | 1·39 | ... | 0·90 | 2·76 | 17·96 | 4·92 | 4·88 | 6·07 | ... | 1·57 | 40·45 |
| Mean | **0·73** | **0·36** | **0·26** | **0·19** | **0·45** | **4·95** | **16·52** | **12·51** | **6·90** | **2·23** | **0·13** | **0·48** | **45·71** |

No. 137 A. RAMNAGAR.

Latitude N. 24° 34′. Longitude E. 80° 58′. Elevation 1,064 feet.

Administration: CENTRAL INDIA.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1881 | ? | ? | ? | ? | ? | ? | ? | 14·50 | 0·82 | ... | ... | ... | ? |
| 1882 | ... | ... | ... | ... | ... | 15·73 | 17·94 | 8·77 | 2·66 | 5·67 | 1·06 | ... | 51·83 |
| 1883 | 1·75 | ... | ... | ... | ... | 5·51 | 9·44 | 3·70 | 7·41 | ... | ... | ... | 27·81 |
| 1884 | 0·03 | 0·25 | ... | ... | ... | 6·11 | 13·39 | 24·27 | 12·65 | 0·67 | ... | 0·13 | 57·50 |
| 1885 | 0·84 | ... | ... | 0·06 | 1·08 | 15·42 | 13·16 | 24·02 | 1·93 | 0·17 | ... | 5·02 | 61·70 |
| 1886 | ... | 0·32 | 0·43 | ... | 0·11 | 7·08 | 18·33 | 7·69 | 7·60 | 6·09 | ... | 0·72 | 48·37 |
| Mean | **0·52** | **0·11** | **0·09** | **0·01** | **0·24** | **9·97** | **14·45** | **13·83** | **5·51** | **2·10** | **0·18** | **0·98** | **47·99** |

No. 138. SUTNA.

Latitude N. 24° 34′. Longitude E. 80° 52′. Elevation 1,040 feet.

Administration: CENTRAL INDIA. Rainfall Province No. V.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | 1·40 | 1·80 | 0·20 | ... | ... | 5·80 | 18·20 | 9·90 | 6·00 | ... | ... | ... | 43·30 |
| 1873 | ... | ... | 0·20 | ... | 0·40 | 0·30 | 27·10 | 12·70 | 4·40 | ... | ... | ... | 45·10 |
| 1874 | 0·50 | 0·10 | 0·10 | ... | ... | 7·10 | 8·30 | 19·80 | 5·40 | 0·30 | ... | ... | 41·60 |
| 1875 | ... | 1·50 | ... | ... | 0·10 | 10·50 | 32·30 | 7·50 | 8·20 | 0·30 | ... | 0·10 | 60·50 |
| 1876 | ... | ... | ... | ... | ... | 2·90 | 20·25 | 11·62 | 6·06 | 1·48 | ... | ... | 42·31 |
| 1877 | 2·09 | 1·29 | 1·32 | 0·22 | 0·70 | 1·32 | 6·19 | 11·10 | 5·11 | 2·12 | ... | 0·19 | 31·65 |

SUTNA—*continued.*

| Year. | Inches of Rinfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1878 | 3·70 | 1·72 | ... | 0·49 | 1·33 | 1·26 | 7·06 | 9·56 | 4·85 | 0·11 | 0·48 | ... | 30·56 |
| 1879 | ... | 0·21 | ... | ... | ... | 5·20 | 16·60 | 15·24 | 2·17 | 0·63 | ... | ... | 40·05 |
| 1880 | ... | 0·55 | ... | ... | 0·23 | 1·93 | 11·39 | 1·40 | 3·73 | 1·28 | 0·91 | 0·40 | 21·82 |
| 1881 | ... | 0·11 | 1·27 | 0·08 | 0·57 | 2·61 | 13·23 | 17·26 | 1·78 | 0·08 | ... | ... | 36·99 |
| 1882 | ... | 0·15 | ... | 0·09 | 0·19 | 30·67 | 8·31 | 9·58 | 2·65 | 10·83 | 1·26 | ... | 63·73 |
| 1883 | 1·41 | 0·01 | 0·21 | ... | 0·45 | 5·03 | 15·88 | 4·28 | 11·44 | 0·53 | ... | ... | 39·84 |
| Mean | 0·76 | 0·62 | 0·27 | 0·07 | 0·33 | 6·27 | 15·40 | 10·83 | 5·15 | 1·47 | 0·22 | 0·06 | 41·45 |
| 1884 | 0·21 | 0·52 | 0·06 | ... | 0·01 | 5·09 | 11·19 | 23·51 | 8·38 | 3·94 | ... | 0·18 | 53·09 |
| 1885 | 0·62 | ... | 0·09 | 0·08 | 1·22 | 3·42 | 15·57 | 13·45 | 0·58 | 0·61 | ... | 4·57 | 40·21 |
| 1886 | 0·65 | 0·20 | 0·79 | ... | 0·47 | 3·09 | 20·15 | 3·63 | 5·29 | 6·91 | ... | 1·31 | 42·49 |
| Mean | 0·71 | 0·54 | 0·28 | 0·06 | 0·38 | 5·79 | 15·45 | 11·37 | 5·07 | 1·94 | 0·18 | 0·45 | 42·22 |

No. 138A. SITLAHA.

Latitude N. 24° 57′. Longitude E. 81° 38′. Elevation 410 feet.

Administration: CENTRAL INDIA.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | ... | 0·33 | ... | 0·11 | ... | 18·97 | 15·00 | 7·35 | 1·45 | 6·47 | 1·64 | ... | 51·32 |
| 1883 | 1·01 | ... | 0·29 | ... | 0·51 | 4·48 | 7·97 | 8·02 | 10·28 | 1·35 | ... | ... | 33·91 |
| 1884 | ... | 0·21 | ... | ... | ... | 0·89 | 11·05 | 25·32 | 8·03 | 1·14 | ... | ... | 46·64 |
| 1885 | ... | ... | ... | ... | 2·45 | 4·56 | 17·35 | 16·29 | 1·79 | ... | ... | 3·98 | 46·42 |
| 1886 | 0·92 | 0·20 | 0·63 | ... | 0·10 | 6·97 | 19·80 | 6·19 | 8·18 | 7·21 | 0·06 | 1·44 | 51·70 |
| Mean | 0·39 | 0·15 | 0·18 | 0·02 | 0·61 | 7·17 | 14·23 | 12·63 | 5·95 | 3·23 | 0·34 | 1·08 | 45·98 |

No. 139. REWAH.

Latitude N. 24° 31′. Longitude E. 81° 20′. Elevation 1,043 feet.

Administration: CENTRAL INDIA. Rainfall Province No. V.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | ... | 6·00 | ... | 1·00 | ... | 8·10 | 12·30 | 24·00 | 5·60 | ... | ... | ... | 57·00 |
| 1873 | 1·50 | ... | 0·20 | ... | ... | 0·20 | 31·90 | 10·60 | 9·00 | ... | 0·10 | ... | 53·50 |
| 1874 | 0·30 | ... | ... | ... | ... | 17·00 | 20·20 | 17·60 | 11·40 | 0·20 | ... | ... | 66·70 |
| 1875 | ... | 0·80 | ... | ... | 1·30 | 19·40 | 33·40 | 23·20 | 5·40 | ... | ... | ... | 83·50 |
| 1876 | ... | ... | ... | ... | ... | 5·10 | 48·50 | 19·40 | 8·80 | 2·40 | ... | ... | 84·20 |
| 1877 | 2·40 | 2·00 | 0·60 | 1·90 | 0·30 | 1·90 | 6·70 | 6·80 | 9·00 | 4·70 | ... | 0·10 | 36·40 |
| 1878 | 3·30 | 0·80 | ... | 0·60 | 0·90 | 3·80 | 6·40 | 14·30 | 9·20 | 0·30 | 1·10 | ... | 40·70 |
| 1879 | ... | 0·90 | ... | ... | ... | 9·60 | 12·10 | 23·40 | 7·30 | 3·50 | ... | ... | 56·80 |
| 1880 | ... | 1·30 | ... | ... | ... | 8·20 | 17·00 | 3·95 | 1·92 | 0·73 | 0·96 | 0·30 | 34·36 |

REWAH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1881 | ... | 0·32 | 1·60 | ... | 0·50 | 2·36 | 15·34 | 18·12 | 3·67 | 0·23 | ... | ... | 42·14 |
| 1882 | ... | 0·23 | ... | ... | 2·40 | 41·97 | 12·87 | 8·06 | 2·48 | 9·71 | 1·32 | ... | 78·94 |
| 1883 | 1·28 | ... | 0·20 | ... | ... | 2·60 | 14·29 | 6·22 | 7·65 | 0·38 | ... | ... | 32·62 |
| Mean | 0·73 | 1·03 | 0·22 | 0·29 | 0·45 | 10·02 | 19·25 | 14·64 | 6·79 | 1·85 | 0·28 | 0·03 | 55·58 |
| 1884 | ... | 0·45 | 0·02 | ... | 0·06 | 5·22 | 15·84 | 22·29 | 13·67 | 3·15 | ... | ... | 60·70 |
| 1885 | 1·00 | 0·08 | 0·05 | 1·10 | 1·03 | 8·12 | 12·07 | 22·67 | 2·46 | 0·22 | ... | 4·87 | 53·67 |
| 1886 | 0·52 | 0·05 | 0·56 | ... | 1·25 | 11·30 | 17·87 | 8·03 | 5·77 | 5·21 | 0·04 | 1·04 | 51·64 |
| Mean | 0·69 | 0·86 | 0·21 | 0·31 | 0·52 | 9·66 | 18·45 | 15·24 | 6·89 | 2·05 | 0·23 | 0·42 | 55·53 |

No. 139 A. MAIHAR.

Latitude N. 24° 18′. Longitude E. 80° 58′. Elevation 1,335 feet.

Administration: CENTRAL INDIA.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1878 | ? | ? | ? | ? | 1·05 | 4·98 | 4·40 | 9·96 | 6·54 | 0·14 | 1·12 | ... | ? |
| 1879 | ... | 0·88 | ... | ... | 0·74 | 8·52 | 17·04 | 14·46 | 5·02 | 1·83 | ... | ... | 48·49 |
| 1880 | ... | 0·70 | ... | ... | 0·03 | 1·82 | 20·09 | 3·34 | 3·53 | 1·09 | 1·22 | 0·27 | 32·09 |
| 1881 | ... | 0·32 | 1·60 | ... | 0·50 | 2·36 | 15·34 | 18·12 | 3·67 | 0·23 | ... | ... | 42·14 |
| 1882 | ... | 0·09 | ... | 0·12 | 0·66 | 17·87 | 16·53 | 5·34 | 5·63 | 5·79 | 2·25 | ... | 54·28 |
| 1883 | 2·44 | ... | ... | ... | 0·56 | 2·57 | 12·85 | 2·44 | 4·26 | 0·50 | ... | ... | 25·62 |
| 1884 | 0·25 | 0·19 | ... | ... | ... | 5·24 | 14·21 | 19·92 | 9·49 | 3·20 | ... | 0·10 | 52·60 |
| 1885 | 0·87 | ... | ... | 0·31 | 0·58 | 8·47 | 18·50 | 17·75 | 2·12 | ... | 0·05 | 5·32 | 53·97 |
| 1886 | 0·07 | ... | 0·22 | ... | 0·40 | 5·41 | 21·82 | 6·95 | 2·58 | 5·87 | ... | 1·79 | 45·11 |
| Mean | 0·45 | 0·29 | 0·23 | 0·05 | 0·47 | 6·53 | 15·35 | 10·52 | 4·72 | 2·06 | 0·52 | 0·83 | 42·02 |

No. 139 B. CHANDIA.

Latitude N. 23° 44′. Longitude E. 80° 48′. Elevation 1,286 feet.

Administration: CENTRAL INDIA.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1881 | ? | ? | ? | ? | ? | ? | ? | 23·00 | 3·02 | 1·26 | 0·07 | ... | ? |
| 1882 | ... | ... | ... | 0·04 | 0·20 | 19·22 | 14·99 | 7·50 | 1·73 | 2·03 | 1·74 | ... | 47·45 |
| 1883 | 1·16 | ... | 0·39 | ... | 0·28 | 6·54 | 16·64 | 3·61 | 5·64 | 0·88 | ... | ... | 35·14 |
| 1884 | 0·05 | 0·55 | ... | ... | 0·06 | 5·85 | 21·31 | 32·86 | 12·70 | 2·28 | ... | ... | 75·66 |
| 1885 | 1·26 | 0·08 | 0·37 | 0·12 | 2·01 | 8·81 | 23·46 | 17·53 | 1·33 | 3·70 | ... | 4·00 | 62·67 |
| 1886 | ... | ... | 0·81 | ... | 0·53 | 4·62 | 18·18 | 5·95 | 4·93 | 7·76 | ... | 0·96 | 43·74 |
| Mean | 0·49 | 0·13 | 0·31 | 0·03 | 0·62 | 9·01 | 18·92 | 15·08 | 4·89 | 2·99 | 0·30 | 0·83 | 53·60 |

No. 139C. SOHAGPUR.

Latitude N. 23° 14′. Longitude E. 81° 28′. Elevation 1,533 feet.

Administration: CENTRAL INDIA.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1882 | ? | ? | ? | ? | ? | 6·10 | 24·60 | 6·27 | 4·57 | 0·80 | 5·46 | ... | ? |
| 1883 | 1·80 | ... | 0·34 | ... | ... | 7·06 | 14·28 | 3·55 | 8·01 | ... | 0·18 | ... | 35·22 |
| 1884 | ... | ... | ... | ... | ... | 6·42 | 20·01 | 20·62 | 12·95 | ... | ... | ... | 60·00 |
| 1885 | 1·93 | 1·36 | 0·55 | 0·10 | 0·57 | 8·13 | 12·53 | 15·31 | 4·66 | 1·40 | ... | 4·87 | 51·41 |
| 1886 | ... | 0·05 | 1·85 | 0·50 | 0·65 | 11·75 | 20·46 | 3·94 | 3·95 | 5·72 | 0·53 | 0·50 | 49·90 |
| Mean | 0·93 | 0·35 | 0·69 | 0·15 | 0·31 | 7·89 | 18·38 | 9·94 | 6·83 | 1·58 | 1·23 | 1·07 | 49·35 |

No. 140. KATMANDU.

Latitude N. 27° 42′. Longitude E. 85° 12′. Elevation 4,361 feet.

Administration: NEPAL. Rainfall Province No. IX.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1851 | ? | ? | 0·57 | 1·60 | 1·24 | 8·48 | 9·92 | 12·36 | 6·87 | 3·42 | ? | ? | ? |
| 1852 | ... | 0·40 | 7·86 | 0·76 | 2·90 | 7·17 | 19·20 | 9·93 | 10·09 | 0·60 | ... | 0·68 | 59·59 |
| 1853 | 1·45 | 0·50 | ... | 0·59 | 1·31 | 13·41 | 17·95 | 14·43 | 12·46 | 1·50 | 0·55 | ? | 64·15? |
| 1854 | ? | 2·88 | 0·80 | 3·93 | 3·60 | 10·13 | 11·62 | 13·39 | 12·80 | 0·15 | 2·75 | ... | 62·05? |
| 1855 | 0·13 | 1·09 | 2·58 | 3·40 | 6·47 | 7·00 | 15·91 | 23·42 | 7·59 | ... | ... | ... | 67·59 |
| 1856 | 1·10 | ... | 2·50 | 1·88 | 3·70 | 10·10 | 10·65 | 12·60 | 5·20 | 6·25 | ... | ... | 53·98 |
| 1857 | ... | 1·15 | 0·20 | 1·62 | 4·43 | 7·99 | 16·22 | 12·33 | 6·89 | 0·62 | ... | ... | 51·45 |
| 1858 | 0·80 | 2·65 | 0·48 | 0·98 | 6·25 | 5·47 | 20·37 | 16·77 | 7·31 | 0·85 | ... | 1·14 | 63·07 |
| 1859 | ... | 4·80 | 2·00 | 1·86 | 5·40 | 12·35 | 10·99 | 14·62 | 5·58 | 7·47 | ... | 0·40 | 65·51 |
| 1860 | 0·60 | 0·50 | 1·80 | 5·46 | 4·42 | 13·59 | 10·43 | 9·49 | 6·57 | 0·18 | ... | ... | 53·04 |
| 1861 | ... | ... | 0·60 | 1·69 | 9·03 | 12·15 | 20·46 | 13·60 | 7·73 | 4·37 | 0·25 | 0·50 | 70·38 |
| 1862 | 0·70 | 0·40 | 1·75 | 2·92 | 6·48 | 8·98 | 17·28 | 21·47 | 7·89 | 2·48 | ... | ... | 70·35 |
| 1863 | 2·09 | 0·40 | ... | 2·23 | 3·65 | 9·76 | 16·04 | 14·24 | 8·01 | 2·09 | ... | 0·09 | 58·60 |
| 1864 | 0·35 | 0·90 | 0·40 | 0·55 | 1·79 | 6·94 | 8·96 | 6·44 | 6·85 | ... | ... | ... | 33·18 |
| 1865 | 1·10 | 1·75 | 1·48 | 3·80 | 7·78 | 4·18 | 12·85 | 10·78 | 7·00 | ... | ... | 0·55 | 51·27 |
| 1866 | 1·95 | 1·95 | ... | 1·95 | 0·65 | 11·35 | 18·35 | 12·15 | 2·55 | 1·10 | ... | ... | 52·00 |
| 1867 | 0·50 | 0·85 | 0·71 | 2·85 | 2·75 | 7·95 | 9·60 | 15·50 | 5·00 | 1·10 | 0·05 | ... | 46·86 |
| 1868 | 0·50 | 1·40 | 0·72 | 0·70 | 5·98 | 18·65 | 11·99 | 11·30 | 7·15 | ... | ... | 0·25 | 58·64 |
| 1869 | 0·65 | 0·50 | 0·80 | 0·70 | 4·00 | 3·80 | 7·55 | 15·95 | 15·50 | 3·40 | 1·75 | 0·55 | 55·15 |
| 1870 | ... | 1·23 | 1·25 | 1·02 | 1·80 | 8·50 | 17·50 | 9·80 | 8·25 | 8·50 | ... | ... | 57·85 |
| 1871 | 0·45 | 1·08 | 1·05 | 3·50 | 2·81 | 10·26 | 15·08 | 14·18 | 7·63 | ... | 0·05 | ... | 56·09 |
| 1872 | 1·70 | 0·70 | 0·60 | 1·10 | 3·37 | 15·77 | 16·47 | 17·17 | 4·89 | 0·52 | ... | ... | 62·29 |
| 1873 | ... | 0·50 | 1·22 | 1·85 | 3·00 | 8·97 | 13·45 | 13·90 | 4·20 | ... | ... | 0·05 | 47·14 |
| 1874 | 0·08 | 1·81 | 2·10 | 0·75 | 1·75 | 7·02 | 13·95 | 13·35 | 9·70 | 5·50 | ... | ... | 56·01 |
| 1875 | 0·50 | 1·10 | 0·10 | 5·37 | 3·62 | 9·25 | 12·65 | 14·35 | 6·15 | ... | ? | ? | 53·09? |
| 1876 | ? | ? | ? | ? | ? | ? | ? | 15·33 | 9·57 | 3·28 | ... | ? | ? |
| 1877 | ? | ? | 1·40 | 1·90 | 3·10 | 6·92 | 11·19 | 8·44 | 5·60 | 1·38 | ... | 0·09 | 40·02? |
| 1878 | 0·60 | 1·17 | 0·70 | 1·30 | 3·25 | 8·36 | 8·75 | 17·28 | 3·10 | 0·86 | ... | ... | 45·37 |

KATMANDU—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1879 | ? | 0·72 | 0·20 | ... | 4·32 | 12·95 | 16·65 | 12·62 | 5·41 | 9·79 | ... | 0·40 | 63·06 ? |
| 1880 | 0·47 | 3·00 | 2·34 | 4·25 | 2·94 | 16·48 | 8·91 | 23·89 | 3·67 | 0·28 | 0·51 | 0·19 | 66·93 |
| 1881 | ... | 0·30 | 2·73 | 0·40 | 3·88 | 21·88 | 15·19 | 8·76 | 9·17 | 3·98 | 0·20 | ... | 66·49 |
| 1882 | 0·27 | 1·09 | 1·23 | 1·38 | 6·30 | 7·72 | 14·54 | 10·73 | 4·20 | 2·70 | ... | 0·10 | 50·26 |
| 1883 | 5·40 | ... | 0·55 | 2·01 | 3·54 | 8·42 | 14·63 | 18·25 | 6·61 | ... | ... | 0·52 | 59·93 |
| Mean | **0·76** | **1·16** | **1·27** | **2·01** | **3·92** | **10·06** | **13·92** | **13·90** | **7·19** | **2·19** | **0·20** | **0·19** | **56·77** |
| 1884 | ... | 0·84 | ... | 3·32 | 4·41 | 8·10 | 9·71 | 16·41 | 10·73 | 1·85 | ... | 0·15 | 55·52 |
| 1885 | 0·88 | 0·37 | 0·54 | 3·39 | 1·98 | 10·57 | 10·91 | 17·76 | 7·20 | 0·23 | ... | 3·40 | 57·23 |
| 1886 | 0·20 | 0·10 | 1·55 | 1·45 | 5·88 | 7·52 | 16·48 | 20·97 | 6·17 | 2·39 | 0·20 | 0·17 | 63·08 |
| Mean | **0·72** | **1·09** | **1·22** | **2·07** | **3·94** | **9·95** | **13·78** | **14·28** | **7·26** | **2·13** | **0·19** | **0·29** | **56·92** |

No. 141. MOTIHAREE.

Latitude N. 26° 40′. Longitude E. 84° 57′. Elevation 217 feet.

Administration: BENGAL. Rainfall Province No. VI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1849 | ... | ... | 0·30 | 0·30 | 3·20 | 20·70 | 10·50 | 12·80 | 1·80 | 10·20 | ... | ... | 59·80 |
| 1850 | 0·50 | 0·60 | ... | 0·20 | 1·30 | 5·60 | 14·00 | 19·00 | 9·80 | 1·20 | ... | 0·50 | 52·70 |
| 1851 | 1·70 | 0·30 | ... | ... | 0·80 | 1·60 | 9·80 | 7·10 | 3·50 | 2·70 | ... | ... | 27·50 |
| 1852 | ... | ... | 4·70 | 1·60 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1853 to 1858 | Not on record. | | | | | | | | | | | | |
| 1859 | ? | ? | ? | ? | ? | 13·00 | 6·20 | 25·40 | 17·80 | 8·50 | ... | ? | ? |
| 1860 | ... | ... | 0·20 | 0·70 | 1·10 | 4·10 | 8·10 | 7·50 | 4·40 | ... | ... | ... | 26·10 |
| 1861 | ? | ... | 0·10 | 0·30 | 5·40 | 16·90 | 24·80 | 3·30 | 13·70 | 8·10 | ... | 0·40 | 73·00 ? |
| 1862 | ? | ... | 1·50 | ... | 6·50 | 4·30 | 8·10 | 11·70 | 7·40 | 1·30 | ... | ... | 40·80 ? |
| 1863 | 0·30 | ... | ... | 2·00 | 1·40 | 6·20 | 14·10 | 23·90 | 9·00 | ? | ... | ... | ? |
| 1864 | ... | ? | ? | ? | ? | ? | ? | 23·90 | 2·70 | 0·70 | 2·00 | ... | ? |
| 1865 to 1866 | Not on record. | | | | | | | | | | | | |
| 1867 | ... | 1·70 | ? | 1·10 | 1·40 | 15·20 | 14·20 | 6·10 | 7·80 | 1.70 | ... | ... | 49·20 ? |
| 1868 | ... | ... | 0·70 | ... | ... | 2·50 | 4·70 | 15·50 | 2·20 | ... | ... | ... | 25·60 |
| 1869 | ... | ... | ... | ... | 1·10 | 3·40 | 5·64 | 2·70 | 5·70 | 4·60 | ... | 0·60 | 23·74 |
| 1870 | ... | ... | 1·50 | ... | 2·10 | 10·50 | 15·16 | 14·89 | 7·01 | 11·72 | ... | ... | 62·88 |
| 1871 | ... | 0·18 | ... | ... | 6·33 | 4·87 | 10·90 | 12·93 | 23·32 | ... | ... | ... | 58·53 |
| 1872 | 0·51 | ... | ... | 0·50 | 2·50 | 13·40 | 13·62 | 6·06 | 13·70 | ... | ... | ... | 50·29 |
| 1873 | 0·90 | ... | 3·00 | 0·80 | 0·90 | 8·02 | 15·11 | 11·58 | 0·73 | ... | ... | 0·20 | 41·24 |
| 1874 | ... | 1·10 | 0·31 | 0·10 | 1·56 | 12·32 | 7·74 | 7·15 | 16·15 | 3·93 | ... | ... | 50·36 |
| 1875 | 0·47 | ... | ... | 1·61 | 4·60 | 9·42 | 8·25 | 14·75 | 8·63 | ... | ... | 0·20 | 47·93 |
| 1876 | 0·37 | ... | 0·14 | 2·23 | 1·81 | 7·09 | 3·03 | 15·48 | 11·58 | 8·17 | ... | ... | 49·90 |

MOTIHAREE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | 3·74 | 0·80 | 0·07 | 1·73 | 1·05 | 1·57 | 13·07 | 3·23 | 0·62 | 1·43 | ... | 0·42 | 27·73 |
| 1878 | 0·78 | 0·25 | 0·08 | 1·62 | 3·16 | 1·81 | 13·89 | 13·01 | 5·32 | 0·31 | ... | ... | 40·23 |
| 1879 | ... | 0·29 | ... | ... | 1·98 | 8·40 | 18·79 | 8·28 | 6·34 | 11·62 | ... | 0·27 | 55·97 |
| 1880 | 0·60 | 2·35 | 0·17 | ... | 2·25 | 2·94 | 10·18 | 15·31 | 0·92 | 0·47 | 0·22 | ... | 35·41 |
| 1881 | ... | 0·01 | 1·11 | ... | 1·85 | 18·15 | 3·29 | 12·18 | 16·44 | 4·03 | ... | ... | 57·06 |
| 1882 | ... | 0·75 | 0·02 | 0·06 | 3·85 | 6·30 | 2·79 | 15·54 | 7·76 | 13·08 | 0·03 | ... | 50·18 |
| 1883 | 1·72 | ... | ... | 0·73 | 2·45 | 5·24 | 10·94 | 15·59 | 0·78 | 0·03 | ... | ... | 37·48 |
| Mean | 0·48 | 0·33 | 0·58 | 0·62 | 2·44 | 8·14 | 10·68 | 12·50 | 7·89 | 3·75 | 0·09 | 0·10 | 47·60 |
| 1884 | ... | ... | ... | 0·43 | 1·50 | 10·77 | 9·54 | 7·26 | 12·97 | 0·97 | ... | ... | 43·44 |
| 1885 | 0·31 | ... | 0·27 | 0·02 | 1·02 | 5·72 | 20·46 | 12·51 | 16·76 | 0·82 | ... | 1·21 | 59·10 |
| 1886 | ... | 0·08 | 0·43 | 0·11 | 4·20 | 4·11 | 12·99 | 15·50 | 13·17 | 3·88 | ... | 0·60 | 55·07 |
| Mean | 0·44 | 0·30 | 0·54 | 0·58 | 2·42 | 8·00 | 11 07 | 12·42 | 8·55 | 3·55 | 0·08 | 0·16 | 48·11 |

No. 142. DURBHUNGA.

Latitude N. 26° 10′. Longitude E. 86° 0′. Elevation 166 feet.

Administration: BENGAL. Rainfall Province No. VI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | 0·05 | 0·01 | 0·37 | 1·73 | 2·82 | 13·57 | 21·65 | 17·77 | 19·57 | 1·16 | ... | ... | 78·70 |
| 1872 | 0·96 | 0·16 | 0·04 | ... | 0·57 | 3·05 | 18·35 | 7·06 | 8·64 | 3·30 | ... | ... | 42·13 |
| 1873 | 0·02 | ... | 1·43 | 0·90 | 0·16 | 3·89 | 7·04 | 7·24 | 2·78 | ... | ... | 0·42 | 23·88 |
| 1874 | 0·19 | 0·89 | 0·21 | 0·54 | 1·19 | 11·58 | 17·41 | 3·95 | 17·59 | 2·72 | ... | ... | 56·27 |
| 1875 | 0·56 | ... | ... | 0·12 | 3·96 | 8·26 | 9·46 | 16·27 | 7·19 | ... | ... | ... | 45·82 |
| 1876 | 0·21 | ... | 0·10 | 2·00 | 1·42 | 3·08 | 3·45 | 6·78 | 9·63 | 3·66 | ... | ... | 30·33 |
| 1877 | 1·96 | 1·39 | 0·02 | 0·92 | 2·04 | 3·15 | 18·25 | 9·61 | 7·85 | 8·15 | ... | 0·96 | 54·30 |
| 1878 | 0·93 | 0·11 | ... | 0·41 | 4·33 | 7·11 | 7·63 | 10·08 | 3·41 | 1·28 | 0·10 | ... | 35·39 |
| 1879 | ... | 1·33 | ... | ... | 1·94 | 9·97 | 18·52 | 13·53 | 11·87 | 5·81 | ... | ... | 62·97 |
| 1880 | 0·36 | 2·17 | ... | ... | 3·06 | 6·98 | 17·39 | 11·80 | 3·90 | 1·65 | 0·29 | ... | 47·60 |
| 1881 | ... | 0·19 | 1·44 | 0·30 | 4·27 | 8·51 | 3·67 | 10·39 | 8·92 | 4·55 | ... | ... | 42·24 |
| 1882 | ... | 1·00 | 0·05 | 0·26 | 1·76 | 8·40 | 5·41 | 22·00 | 11·95 | 2·70 | 0·65 | ... | 54·18 |
| 1883 | 0·91 | 0·13 | ... | 0·70 | 1·42 | 19·10 | 6·44 | 10·68 | 2·62 | 0·13 | ... | ... | 42·13 |
| Mean | 0·47 | 0·57 | 0·28 | 0·61 | 2·23 | 8·20 | 11·90 | 11·32 | 8·92 | 2·70 | 0·08 | 0·11 | 47·39 |
| 1884 | ... | 0·22 | ... | 0·50 | 2·29 | 6·73 | 4·67 | 3·87 | 7·56 | 6·98 | ... | ... | 32·82 |
| 1885 | 0·64 | ... | 0·10 | 0·04 | 3·14 | 3·54 | 17·26 | 9·05 | 24·74 | 0·08 | .... | 1·13 | 59·72 |
| 1886 | 0·34 | 0·08 | 0·27 | 0·70 | 2·10 | 5·06 | 14·57 | 18·82 | 9·89 | 5·38 | ... | 0·57 | 57·78 |
| Mean | 0·45 | 0·48 | 0·25 | 0·57 | 2·28 | 7·62 | 11·95 | 11·18 | 9·88 | 2·97 | 0·06 | 0·19 | 47·88 |

No. 143. SEWAN.

Latitude N. 26° 13′. Longitude E. 84° 24′. Elevation 180 feet.

Administration: BENGAL. Rainfall Province No. VI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | P | P | P | P | 0·67 | 12·13 | 12·16 | 7·87 | 8·27 | 13·88 | ... | ... | P |
| 1871 | ... | 2·72 | 0·24 | 0·70 | 4·36 | 5·92 | 14·40 | 21·64 | 33·60 | ... | ... | 0·63 | 84·21 |
| 1872 | 1·19 | 0·02 | 0·02 | 0·05 | 0·98 | 9·69 | 16·00 | 7·23 | 13·11 | 0·75 | ... | ... | 49·04 |
| 1873 | 0·34 | 0·06 | 0·72 | 0·25 | 1·33 | 4·80 | 16·31 | 8·34 | 1·14 | ... | ... | 0·08 | 33·37 |
| 1874 | 0·03 | 0·77 | 0·42 | 0·11 | 0·07 | 15·45 | 5·84 | 11·10 | 9·74 | 2·74 | ... | 0·03 | 46·30 |
| 1875 | 0·66 | 0·58 | ... | 0·34 | 3·35 | 13·67 | 7·70 | 11·44 | 5·28 | 0·53 | ... | ... | 43·55 |
| 1876 | 0·11 | ... | 0·12 | 0·16 | 3·31 | 2·40 | 7·23 | 14·26 | 10·67 | 7·48 | 0·09 | ... | 43·83 |
| 1877 | 3·82 | 1·15 | 0·19 | 0·45 | 1·20 | 5·18 | 8·81 | 3·54 | 0·44 | 6·60 | ... | 0·07 | 31·45 |
| 1878 | 1·86 | 0·19 | ... | 0·86 | 1·35 | 1·04 | 7·99 | 9·87 | 9·36 | 0·29 | 0·45 | ... | 33·26 |
| 1879 | ... | 0·31 | ... | ... | ... | 7·77 | 14·50 | 9·70 | 13·45 | 5·79 | ... | ... | 51·52 |
| 1880 | ... | 2·20 | ... | ... | 2·07 | 4·46 | 27·08 | 10·05 | 3·37 | 1·56 | 0·64 | 0·05 | 51·48 |
| 1881 | ... | ... | 1·63 | ... | 2·71 | 8·48 | 9·86 | 9·94 | 5·07 | 5·35 | ... | ... | 43·04 |
| 1882 | ... | 0·39 | 0·01 | 1·03 | 2·86 | 6·98 | 2·83 | 11·90 | 2·66 | 10·68 | 0·50 | ... | 39·84 |
| 1883 | 2·06 | 0·13 | 0·27 | 0·20 | 0·25 | 7·58 | 13·90 | 6·30 | 4·59 | 0·06 | ... | ... | 35·34 |
| Mean | **0·77** | **0·66** | **0·28** | **0·32** | **1·75** | **7·54** | **11·76** | **10·23** | **8·63** | **3·98** | **0·12** | **0·06** | **46·10** |
| 1884 | ... | ... | 0·01 | ... | 1·17 | 4·18 | 6·25 | 7·49 | 8·99 | 1·84 | ... | ... | 29·93 |
| 1885 | 0·48 | 0·02 | 0·13 | ... | 1·85 | 2·22 | 12·61 | 18·60 | 11·88 | 0·02 | ... | 1·40 | 49·21 |
| 1886 | 0·68 | 0·05 | 0·14 | ... | 2·78 | 4·03 | 21·56 | 13·87 | 7·94 | 8·75 | 0·20 | 0·41 | 60·41 |
| Mean | **0·70** | **0·54** | **0·24** | **0·26** | **1·78** | **6·82** | **12·06** | **10·77** | **8·80** | **3·90** | **0·11** | **0·16** | **46·14** |

No. 144. BUXAR.

Latitude N. 25° 34′. Longitude E. 84° 1′. Elevation 205 feet.

Administration: BENGAL. Rainfall Province No. VI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | P | P | P | P | P | 3·55 | 9·15 | 7·15 | 5·30 | ... | ... | P | P |
| 1869 | 0·80 | ... | 0·10 | ... | 0·30 | 4·75 | 12·00 | 6·80 | 10·13 | 6·05 | ... | 0·05 | 40·98 |
| 1870 | ... | 0·15 | 0·59 | 0·63 | ... | 4·13 | 14·07 | 12·00 | 5·89 | 10·92 | ... | ... | 48·38 |
| 1871 | ... | 0·03 | 0·25 | 0·65 | 3·17 | 12·05 | 19·05 | 19·08 | 17·65 | 0·30 | ... | 0·80 | 73·03 |
| 1872 | 2·56 | 0·30 | 0·35 | ... | 0·20 | 4·25 | 10·80 | 4·95 | 10·42 | 0·05 | ... | ... | 33·88 |
| 1873 | 0·40 | 0·10 | 0·65 | ... | 0·23 | 1·15 | 10·00 | 8·10 | 1·60 | ... | ... | 0·15 | 22·38 |
| 1874 | 0·50 | 1·00 | 0·40 | ... | ... | 11·15 | 7·36 | 16·78 | 7·45 | 7·75 | ... | 0·35 | 52·74 |
| 1875 | 0·65 | 0·07 | ... | ... | 1·06 | 11·28 | 7·37 | 17·07 | 4·51 | 0·62 | ... | ... | 42·63 |
| 1876 | ... | ... | 0·06 | ... | 0·33 | 1·37 | 10·84 | 13·17 | 11·91 | 2·61 | ... | ... | 40·29 |
| 1877 | 3·15 | 1·46 | 0·78 | 0·72 | 1·53 | 0·23 | 5·80 | 3·05 | 1·56 | 3·92 | ... | 0·52 | 22·72 |
| 1878 | 2·50 | 0·20 | ... | 0·68 | 2·02 | 2·59 | 9·13 | 4·52 | 3·12 | 0·05 | 0·93 | ... | 25·74 |
| 1879 | ... | 0·82 | ... | ... | ... | 5·62 | 15·64 | 7·99 | 17·85 | 3·81 | ... | ... | 51·73 |
| 1880 | ... | 1·85 | ... | ... | 0·66 | 1·66 | 23·33 | 6·14 | 1·74 | 5·06 | 0·71 | 0·04 | 41·19 |
| 1881 | 0·07 | 0·03 | 0·72 | ... | 1·29 | 5·20 | 12·93 | 14·14 | 2·29 | 4·24 | ... | ... | 40·91 |

BUXAR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | ... | 0·30 | ... | ... | 0·20 | 2·07 | 4·60 | 9·74 | 2·65 | 2·70 | 1·25 | ... | 23·51 |
| 1883 | 1·47 | 0·05 | 0·50 | ... | 0·21 | 7·67 | 13·92 | 5·40 | 6·47 | 1·03 | ... | ... | 36·72 |
| Mean | 0·81 | 0·42 | 0·29 | 0·18 | 0·75 | 4·92 | 11·62 | 9·76 | 6·91 | 3·07 | 0·18 | 0·13 | 39·04 |
| 1884 | 0·01 | ... | ... | ... | 0·61 | 4·76 | 6·24 | 7·27 | 4·97 | 5·55 | ... | ... | 29·41 |
| 1885 | 0·39 | ... | 0·36 | 0·07 | 0·79 | 1·48 | 5·87 | 21·90 | 13·37 | 0·02 | ... | 1·94 | 46·19 |
| 1886 | 0·30 | ... | 0·11 | ... | 0·56 | 8·87 | 15·71 | 5·15 | 10·63 | 7·07 | 0·03 | 0·36 | 48·79 |
| Mean | 0·72 | 0·35 | 0·27 | 0·15 | 0·73 | 4·94 | 11·25 | 10·02 | 7·34 | 3·25 | 0·15 | 0·23 | 39·40 |

No. 145. CHUPRA.

Latitude N. 25° 47′. Longitude E. 84° 47′. Elevation 180 feet.

Administration: BENGAL. Rainfall Province No. VI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1849 | 0·62 | 0·35 | ... | 0·10 | 2·50 | 13·85 | 5·19 | 4·18 | 2·70 | 8·75 | 0·20 | ... | 38·44 |
| 1850 | 5·29 | 0·60 | ... | ... | ... | 13·13 | 9·28 | 5·13 | 9·75 | 0·60 | ... | ... | 43·78 |
| 1851 | 1·45 | 1·10 | 0·90 | ... | ... | 5·32 | 4·55 | 2·70 | 8·90 | 3·40 | ... | ... | 28·32 |
| 1852 | ... | ... | 1·85 | ... | 2·30 | 7·15 | 15·25 | 9·20 | 2·00 | 0·52 | ... | ... | 38·27 |
| 1853 | 1·45 | 0·70 | ... | ... | P | P | P | 3·80 | P | P | P | ... | P |
| 1854 | ... | 0·15 | ... | ... | 2·37 | 5·87 | 3·10 | 20·00 | 16·95 | 0·55 | 1·25 | ... | 50·24 |
| 1855 to 1858 | Not on record. | | | | | | | | | | | | |
| 1859 | P | P | P | P | P | 11·10 | 5·90 | 12·60 | 9·20 | P | ... | P | P |
| 1860 | ... | ... | 0·40 | 0·30 | ... | 0·70 | 6·80 | 2·80 | 3·30 | 0·40 | ... | ... | 14·70 |
| 1861 | 0·05 | ... | ... | ... | 1·13 | 7·97 | 8·03 | 7·90 | 9·20 | 3·10 | ... | ... | 37·38 |
| 1862 | ... | ... | 1·60 | 0·50 | 1·75 | 5·72 | 5·12 | 6·52 | 3·00 | 3·66 | ... | ... | 27·87 |
| 1863 | 0·55 | 0·16 | ... | 1·65 | 0·55 | 3·97 | 14·86 | 16·62 | 14·60 | 3·30 | ... | ... | 56·26 |
| 1864 | ... | 0·72 | 0·20 | 0·67 | P | 2·69 | 9·13 | 8·96 | 7·00 | ... | ·15 | ... | P |
| 1865 | 0·16 | 0·76 | 1·72 | 2·00 | 1·60 | 1·80 | 16·33 | 6·27 | 3·55 | ... | 0·15 | ... | 34·34 |
| 1866 | 1·20 | 1·50 | ... | 1·70 | ... | 2·50 | 6·39 | 12·70 | 3·60 | 0·40 | ... | ... | 29·99 |
| 1867 | 0·70 | 2·20 | ... | 0·60 | 3·30 | 13·77 | 22·55 | 9·15 | 17·40 | 6·55 | ... | ... | 76·22 |
| 1868 | 0·76 | 0·80 | 0·60 | 0·32 | 3·64 | 5·45 | 3·20 | 7·91 | 4·45 | ... | ... | ... | 27·13 |
| 1869 | 0·18 | ... | 0·65 | ... | ... | 4·60 | 8·10 | 9·50 | 7·20 | 3·50 | ... | ... | 33·73 |
| 1870 | ... | ... | ... | 0·69 | 0·20 | 10·11 | 10·52 | 7·71 | 5·14 | 8·59 | ... | ... | 42·96 |
| 1871 | ... | ... | ... | 1·10 | 2·70 | 10·00 | 13·87 | 18·71 | 24·44 | 0·85 | ... | ... | 71·67 |
| 1872 | 2·30 | 0·20 | 0·37 | ... | 1·31 | 3·21 | 11·44 | 7·00 | 12·17 | 0·48 | ... | ... | 38·48 |
| 1873 | 0·29 | ... | 1·70 | 1·00 | ... | 3·42 | 15·57 | 10·80 | 1·10 | ... | ... | ... | 33·88 |
| 1874 | 0·22 | 0·87 | 0·39 | ... | ... | 9·67 | 12·01 | 9·63 | 7·99 | 1·29 | ... | ... | 42·07 |
| 1875 | 0·83 | 0·10 | ... | 0·50 | 1·91 | 7·65 | 9·16 | 8·14 | 4·15 | ... | ... | ... | 32·44 |
| 1876 | ... | ... | 0·10 | 0·06 | 0·15 | 0·82 | 4·23 | 13·48 | 8·17 | 8·13 | ... | ... | 35·14 |
| 1877 | 2·00 | 1·57 | 0·37 | 0·48 | 1·58 | 2·89 | 9·48 | 3·47 | 2·23 | 2·62 | ... | 0·83 | 27·52 |
| 1878 | 1·22 | 0·10 | ... | 0·30 | 2·52 | 1·46 | 7·60 | 9·34 | 5·56 | 0·69 | 0·39 | ... | 29·18 |
| 1879 | ... | 0·78 | ... | ... | ... | 3·74 | 11·35 | 13·62 | 13·51 | 6·60 | ... | ... | 49·60 |

CHUPRA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1880 | 0·29 | 2·40 | ... | ... | 1·85 | 8·34 | 24·71 | 9·93 | 1·44 | 6·10 | 0·58 | 0·18 | 55·82 |
| 1881 | ... | 0·01 | 0·56 | 0·20 | 1·95 | 4·24 | 10·77 | 10·87 | 4·54 | 4·74 | ... | ... | 37·78 |
| 1882 | ... | 0·09 | ... | 0·18 | 1·45 | 9·48 | 5·03 | 6·87 | 1·08 | 3·71 | 3·85 | ... | 31·74 |
| 1883 | 1·43 | ... | 0·51 | 0·03 | ... | 11·87 | 16·18 | 4·67 | 3·83 | 0·36 | ... | ... | 38·88 |
| Mean | **0·70** | **0·51** | **0·40** | **0·41** | **1·24** | **6·42** | **10·19** | **9·04** | **7·27** | **2·72** | **0·22** | **0·03** | **39·15** |
| 1884 | ... | ... | ... | ... | 0·85 | 6·42 | 9·25 | 9·69 | 5·29 | 1·63 | ... | ... | 33·13 |
| 1885 | 0·82 | ... | 0·68 | 0·06 | 0·07 | 3·91 | 13·23 | 15·74 | 11·64 | 1·89 | ... | 1·64 | 49·68 |
| 1886 | 0·12 | 0·14 | 0·26 | ... | 3·50 | 5·73 | 25·62 | 11·89 | 9·08 | 12·23 | 0·18 | 0·58 | 69·33 |
| Mean | **0·66** | **0·46** | **0·39** | **0·38** | **1·26** | **6·32** | **10·72** | **9·34** | **7·40** | **2·96** | **0·30** | **0·10** | **40·29** |

No. 146. ARRAH.

Latitude N. 25° 34′. Longitude E, 84° 42′. Elevation 190 feet.

Administration: BENGAL. Rainfall Province No. VI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1849 | 3·30 | 1·00 | ... | ... | 1·05 | 5·75 | 9·20 | 7·00 | 6·60 | 5·00 | 1·20 | ... | 40·10 |
| 1850 | 2·10 | ... | 0·50 | 5·00 | 2·00 | 13·25 | 25·55 | 19·15 | 19·80 | 2·40 | ... | ... | 89·75 |
| 1851 | 3·00 | 2·00 | 3·50 | 2·00 | ... | 13·90 | 21·70 | 2·00 | 13·40 | 2·00 | ... | ... | 63·50 |
| 1852 | 0·50 | ... | 0·35 | 1·00 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1853 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | 0·75 | 0·17 | 0·17 | ... | ... | 1·00 | 13·57 | 5·27 | 21·19 | 2·35 | ... | ? | 44·47 ? |
| 1861 | ... | ... | 0·30 | ... | 2·95 | 17·40 | 13·05 | 7·57 | 10·12 | 4·70 | ... | 0·05 | 56·14 |
| 1862 | 0·72 | ... | 1·92 | ... | 0·80 | 3·20 | 17·65 | 13·67 | 2·52 | 1·30 | ... | ... | 41·78 |
| 1863 | 0·92 | 0·02 | ... | 1·05 | 0·30 | ? | 18·11 | 10·87 | 26·37 | 3·55 | ... | ... | ? |
| 1864 | ... | 0·90 | ... | ... | ... | ? | 4·00 | 4·60 | 8·32 | ... | 2·50 | ... | ? |
| 1865 | ... | 0·50 | 1·85 | 2·28 | 3·91 | 2·45 | 19·85 | 5·70 | 2·10 | ... | ... | 0·50 | 39·14 |
| 1866 | 0·70 | 1·90 | ... | 0·80 | ... | 6·50 | 12·85 | 12·95 | 5·25 | 0·90 | ... | ... | 41·85 |
| 1867 | 0·65 | 2·00 | 0·20 | 0·27 | 3·35 | 10·85 | 16·39 | 7·30 | 8·06 | 2·88 | ... | ... | 51·95 |
| 1868 | 1·24 | 0·67 | 0·65 | 0·38 | 1·52 | 5·40 | 3·10 | 7·88 | 6·20 | 0·40 | ... | ... | 27·44 |
| 1869 | 0·25 | 0·05 | 0·35 | ... | 0·25 | 5·75 | 12·35 | 12·60 | 8·00 | 9·10 | ... | ... | 48·70 |
| 1870 | ... | ... | 0·75 | 1·25 | ... | 6·99 | 8·48 | 11·60 | 8·60 | 10·66 | ... | ... | 48·33 |
| 1871 | ... | 0·01 | 0·08 | 0·36 | 4·22 | 8·26 | 12·63 | 23·50 | 11·48 | 0·45 | ... | 0·50 | 61·49 |
| 1872 | 2·22 | 0·80 | 0·12 | 0·10 | 0·80 | 4·37 | 13·08 | 4·39 | 9·10 | 0·55 | ... | ... | 35·53 |
| 1873 | 0·32 | 0·06 | 1·06 | ... | 0·70 | 1·91 | 19·76 | 10·91 | 3·90 | ... | ... | 0·08 | 37·80 |
| 1874 | 0·31 | 1·00 | 0·25 | ... | 0·05 | 17·32 | 8·31 | 12·17 | 13·07 | 2·30 | ... | ... | 54·78 |
| 1875 | 0·90 | 0·17 | ... | 0·59 | 1·98 | 5·61 | 7·83 | 12·18 | 3·80 | ... | ... | ... | 33·06 |
| 1876 | 0·02 | ... | 0·08 | ... | 0·15 | 1·72 | 4·55 | 6·76 | 4·42 | 4·23 | ... | ... | 21·93 |
| 1877 | 2·53 | 4·57 | 0·49 | 0·87 | 3·70 | 1·59 | 8·38 | 4·06 | 1·35 | 2·83 | ... | 0·32 | 28·69 |
| 1878 | 1·98 | ... | ... | 0·50 | 2·80 | 4·59 | 8·98 | 12·87 | 5·63 | 0·11 | 0·75 | ... | 38·21 |
| 1879 | ... | 1·33 | ... | ... | ... | 6·58 | 8·49 | 9·82 | 15·75 | 4·90 | ... | ... | 46·87 |
| 1880 | 0·24 | 2·37 | ... | 0·05 | 0·59 | 4·35 | 20·05 | 14·87 | 2·83 | 4·63 | 0·40 | 0·02 | 50·40 |

ARRAH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1881 | 0·07 | 0·10 | 1·10 | 0·20 | 2·85 | 6·10 | 12·19 | 16·13 | 3·02 | 3·73 | ... | ... | 45·49 |
| 1882 | ... | 0·04 | 0·04 | 0·06 | 1·84 | 5·92 | 7·42 | 11·89 | 3·23 | 4·41 | 1·46 | ... | 36·31 |
| 1883 | 1·89 | 0·09 | 0·26 | ... | 0·06 | 11·62 | 8·23 | 5·43 | 4·06 | 0·55 | ... | ... | 32·19 |
| Mean | 0·88 | 0·63 | 0·50 | 0·60 | 1·33 | 6·90 | 12·44 | 10·12 | 8·42 | 2·74 | 0·23 | 0·06 | 44·85 |
| 1884 | ... | ... | 0·03 | ... | 0·85 | 4·33 | 9·00 | 5·04 | 4·27 | 1·57 | ... | ... | 25·09 |
| 1885 | 0·50 | ... | 0·63 | ... | 0·07 | 3·89 | 16·60 | 13·96 | 9·31 | 0·80 | ... | 2·60 | 48·36 |
| 1886 | 0·06 | 0·02 | 0·53 | ... | 1·22 | 7·14 | 17·23 | 15·28 | 14·78 | 11·46 | ... | 0·33 | 68·05 |
| Mean | 0·81 | 0·57 | 0·49 | 0·54 | 1·27 | 6·71 | 12·62 | 10·25 | 8·52 | 2·93 | 0·21 | 0·15 | 45·07 |

No. 147. PATNA.

Latitude N. 25° 37′ Longitude E. 85° 14′. Elevation 179 feet.

Administration : BENGAL. Rainfall Province No. VI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1842 | ? | ? | ? | ? | ? | 7·33 | 14·06 | 11·86 | 10·11 | 6·46 | ... | 1·74 | ? |
| 1843 | 0·11 | 0·23 | 0·10 | 0·12 | 1·54 | 5·50 | 3·05 | 3·76 | 3·38 | 4·03 | ... | ... | 21·82 |
| 1844 | 0·46 | 1·53 | 0·07 | 1·19 | 3·40 | 4·95 | 9·00 | 10·78 | 4·26 | ... | ... | ... | 35·64 |
| 1845 | 0·67 | 0·75 | ... | 0·05 | 2·24 | 4·74 | 9·34 | 7·20 | 7·69 | ... | ... | 0·60 | 33·28 |
| 1846 | 0·14 | 0·75 | 0·60 | ... | 0·84 | 6·56 | 10·42 | 9·00 | 9·12 | 0·85 | ... | ... | 38·28 |
| 1847 | 1·90 | 0·07 | 0·05 | 0·64 | 1·66 | 2·36 | 13·10 | 16·99 | 5·37 | 4·00 | 1·39 | ... | 47·53 |
| 1848 | ... | ... | ... | 0·10 | 0·50 | 16·60 | 8·00 | 19·25 | 5·00 | 5·20 | ... | 0·45 | 55·10 |
| 1849 | 1·07 | 0·40 | ... | ... | 0·85 | 6·75 | 8·60 | 6·10 | 2·65 | 4·90 | 1·00 | ... | 32·32 |
| 1850 | 0·50 | 0·30 | 0·20 | ... | ... | 12·65 | 9·40 | 7·25 | 5·10 | 0·70 | ... | ... | 36·10 |
| 1851 | 1·73 | 1·15 | ... | 0·10 | 0·40 | 7·29 | 7·07 | 2·00 | 7·70 | 4·20 | ... | ... | 31·64 |
| 1852 | ... | ... | 1·00 | 0·20 | 3·96 | 5·90 | 21·44 | 6·67 | 4·55 | 0·15 | 0·01 | 0·04 | 43·92 |
| 1853 | 3·69 | 1·25 | ... | 0·02 | ... | 4·54 | 6·46 | 1·31 | 12·60 | 1·87 | ... | ... | 31·74 |
| 1854 | ... | 0·48 | ... | 0·09 | 2·00 | 9·82 | 3·39 | 18·57 | 26·25 | 0·57 | 0·71 | 0·02 | 61·90 |
| 1855 | 0·02 | 0·01 | 0·71 | 1·67 | 0·14 | 5·30 | 12·87 | 8·86 | 16·71 | ... | ... | ... | 46·29 |
| 1856 | 1·45 | ... | 1·76 | 0·06 | 1·37 | 11·85 | 11·17 | 12·76 | 9·02 | 7·05 | 1·47 | ... | 57·96 |
| 1857 | 0·22 | 0·25 | 0·46 | 0·52 | 1·39 | 5·08 | 19·96 | ? | ? | ? | ? | ? | ? |
| 1858 to 1866 | Not on record | | | | | | | | | | | | |
| 1867 | ? | ? | ? | ? | ? | ? | ? | ? | 11·55 | 1·30 | ... | ... | ? |
| 1868 | 0·88 | 2·03 | 0·30 | 0·70 | 2·00 | 5·06 | 5·73 | 5·86 | 3·42 | 0·04 | ... | ... | 26·02 |
| 1869 | 0·21 | 0·02 | 0·55 | 0·01 | 0·52 | 7·21 | 13·06 | 10·06 | 9·85 | 3·42 | ... | ... | 44·91 |
| 1870 | 0·01 | 0·03 | 0·37 | 0·41 | 0·23 | 4·49 | 8·33 | 8·01 | 6·21 | 7·61 | ... | ... | 35·70 |
| 1871 | 0·95 | 0·02 | 0·02 | 1·20 | 4·90 | 11·01 | 14·17 | 8·61 | 18·84 | 0·50 | ... | 0·14 | 59·46 |
| 1872 | 2·02 | 0·85 | 0·02 | ... | 1·16 | 4·83 | 8·15 | 5·54 | 7·07 | 1·53 | ... | ... | 31·17 |
| 1873 | 0·19 | 0·02 | 0·80 | 0·10 | 0·13 | 3·41 | 13·04 | 11·78 | 0·94 | ... | ... | 0·13 | 30·54 |
| 1874 | 0·46 | 0·58 | 0·37 | 0·37 | ... | 10·66 | 15·00 | 5·29 | 11·98 | 4·97 | ... | ... | 49·68 |
| 1875 | 1·27 | 0·11 | ... | 0·21 | 2·59 | 18·10 | 9·34 | 8·37 | 5·36 | 0·03 | ... | ... | 45·38 |
| 1876 | ... | ... | 0·04 | 0·02 | 0·06 | 0·75 | 5·08 | 14·73 | 11·31 | 5·51 | ... | ... | 37·50 |

PATNA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | 1·43 | 1·27 | 0·28 | 0·13 | 5·45 | 0·65 | 8·19 | 5·78 | 2·11 | 5·83 | ... | 0·72 | 31·84 |
| 1878 | 1·11 | 0·13 | 0·07 | 0·50 | 2·92 | 2·05 | 13·74 | 15·46 | 3·87 | ... | 0·80 | ... | 40·65 |
| 1879 | ... | 1·37 | ... | ... | 0·02 | 5·23 | 9·78 | 12·87 | 8·93 | 6·53 | .... | ... | 44·73 |
| 1880 | 0·09 | 2·39 | ... | ... | 2·16 | 7·11 | 23·39 | 18·05 | 2·45 | 3·63 | 0·31 | 0·12 | 59·70 |
| 1881 | 0·08 | 0·04 | 2·75 | 0·97 | 5·03 | 11·26 | 16·28 | 12·61 | 9·44 | 3·52 | ... | ... | 61·98 |
| 1882 | ... | 0·09 | 0·01 | 0·03 | 1·98 | 7·77 | 3·86 | 12·96 | 1·31 | 5·50 | 1·21 | ... | 34·72 |
| 1883 | 1·93 | 0·15 | 0·39 | 0·16 | 0·15 | 14·83 | 9·20 | 7·53 | 5·01 | 0·40 | ... | ... | 39·75 |
| Mean | **0·70** | **0·52** | **0·35** | **0·31** | **1·60** | **7·24** | **10·74** | **9·87** | **7·79** | **2·82** | **0·22** | **0·13** | **42·29** |
| 1884 | ... | ... | ... | ... | 0·97 | 8·21 | 6·49 | 7·26 | 3·71 | 4·17 | ... | ... | 30·81 |
| 1885 | 0·24 | 0·01 | 0·25 | 0·02 | 0·69 | 2·27 | 13·91 | 11·83 | 13·44 | 1·09 | ... | 1·77 | 45·52 |
| 1886 | ... | 0·16 | 0·42 | ... | 1·52 | 4·83 | 22·09 | 18·27 | 12·11 | 5·84 | 0·18 | 0·13 | 65·55 |
| Mean | **0·65** | **0·48** | **0·33** | **0·27** | **1·55** | **7·06** | **11·03** | **10·10** | **7·95** | **2·90** | **0·21** | **0·17** | **42·70** |

No. 148. MOZUFFERPORE.

Latitude N. 26° 7′. Longitude E. 85° 27′. Elevation 179 feet.

Administration: BENGAL. Rainfall Province No. VI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | ? | ? | ? | ? | 2·10 | 7·20 | 8·60 | 11·70 | 11·20 | 2·90 | ... | ... | ? |
| 1849 | 0·80 | 0·50 | ... | 0·20 | 1·80 | 8·30 | 5·80 | 4·50 | 2·80 | 7·95 | ... | ... | 32·65 |
| 1850 | 0·20 | 0·80 | ... | 0·30 | 0·90 | 2·80 | 7·10 | 8·00 | 8·62 | 0·80 | ... | ... | 29·52 |
| 1851 | 2·50 | 1·40 | 1·00 | ... | ... | 3·50 | 8·30 | 8·20 | 2·70 | 4·30 | ... | ... | 31·90 |
| 1852 | ... | ... | 3·60 | 1·38 | 3·06 | 6·69 | 27·00 | 9·00 | 8·19 | 0·12 | ... | ... | 59·04 |
| 1853 | 2·56 | 0·56 | ... | 0·12 | 0·44 | ... | 4·69 | 8·19 | ? | 0·37 | ... | ... | ? |
| 1854 | ... | 0·69 | ... | 0·50 | 6·50 | 9·70 | 6·20 | 22·50 | 9·50 | ... | 1·00 | ? | 56·59 ? |
| 1855 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | ... | 0·20 | 0·40 | 0·70 | 2·30 | 6·80 | 8·30 | 3·70 | 0·80 | ? | ? | 23·20 ? |
| 1861 | ... | ... | ... | ... | 5·40 | 8·50 | 16·10 | ? | 5·20 | 6·60 | ... | ... | ? |
| 1862 | ... | ... | ... | 0·70 | ... | 8·80 | ... | 11·10 | 4·60 | 2·80 | ... | ... | 28·00 |
| 1863 | ? | ? | ? | ? | ? | 4·00 | 8·60 | 16·40 | ... | 2·50 | ... | ... | ? |
| 1864 to 1866 | Not on record. | | | | | | | | | | | | |
| 1867 | 3·10 | 1·10 | ? | 1·20 | 0·80 | 9·60 | 18·90 | 10·00 | 12·00 | 2·30 | ... | ... | 61·00 ? |
| 1868 | 0·40 | 1·70 | ... | 0·20 | 3·30 | 1·80 | 6·30 | 10·18 | 3·20 | ... | ... | ... | 27·00 |
| 1869 | 0·10 | ... | 0·60 | ... | 2·10 | 10·00 | 8·60 | 8·30 | 6·90 | 2·90 | ... | ... | 39·50 |
| 1870 | ? | ? | 1·00 | 0·20 | 1·60 | 10·60 | 24·00 | 16·00 | 13·90 | 14·00 | ... | ... | 81·30 ? |
| 1871 | ... | 0·60 | ... | 1·30 | 4·03 | 11·65 | 18·00 | 6·91 | 35·80 | 0·33 | 0·40 | ... | 79·02 |
| 1872 | 2·10 | 0·20 | 0·20 | 0·32 | 4·82 | 3 70 | 16·70 | 9·63 | 11·20 | 1·70 | ... | ... | 50·57 |
| 1873 | 2·20 | ... | 2·20 | 0·60 | ... | 3·99 | 10·11 | 7·11 | 2·82 | ... | ... | 0·03 | 29·06 |
| 1874 | 0·09 | 0·80 | 0·30 | 1·07 | 0·09 | 8·95 | 13·06 | 4·59 | 10·60 | 4·44 | ... | ... | 43·99 |

MOZUFFERPORE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | 1·27 | ... | ... | 1·01 | 2·67 | 4·86 | 9·46 | 8·98 | 4·36 | ... | ... | ... | 32·61 |
| 1876 | 0·09 | ... | 0·15 | 1·75 | 2·05 | 4·80 | 5·05 | 14·04 | 19·85 | 5·93 | ... | ... | 53·71 |
| 1877 | 1·92 | 0·99 | 0·12 | 0·28 | 1·60 | 1·98 | 9·33 | 3·01 | 2·89 | 5·26 | ... | 0·95 | 28·33 |
| 1878 | 1·44 | 0·12 | ... | 0·89 | 5·43 | 4·70 | 10·77 | 5·49 | 5·35 | 0·92 | 0·30 | ... | 35·41 |
| 1879 | ... | 1·03 | ... | ... | 0·56 | 14·57 | 17·30 | 5·30 | 13·74 | 7·80 | 0·09 | ... | 60·39 |
| 1880 | ... | 2·73 | ... | ... | 2·93 | 3·55 | 16·30 | 20·28 | 1·84 | 0·84 | 0·25 | ... | 48·72 |
| 1881 | ... | ... | 1·92 | ... | 3·14 | 6·67 | 8·13 | 10·38 | 7·71 | 3·58 | ... | ... | 41·53 |
| 1882 | ... | 0·63 | 0·06 | 0·56 | 3·75 | 5·98 | 3·39 | 15·42 | 4·62 | 3·20 | 0·46 | ... | 38·07 |
| 1883 | 1·78 | 0·03 | 0·04 | 0·74 | 0·94 | 20·09 | 8·83 | 12·08 | 4·88 | 0·08 | ... | ... | 49·49 |
| Mean. | 0·82 | 0·56 | 0·46 | 0·53 | 2·25 | 6·76 | 10·84 | 10·20 | 8·15 | 2·94 | 0·09 | 0·04 | 43·64 |
| 1884 | 0·03 | 0·09 | ... | ... | 1·63 | 8·14 | 7·05 | 5·16 | 7·14 | 4·94 | ... | ... | 34·18 |
| 1885 | 0·37 | ... | 0·25 | ... | 4·02 | 3·45 | 14·11 | 8·43 | 12·96 | ... | ... | 0·88 | 44·47 |
| 1886 | 0·70 | 0·14 | 0·72 | 0·15 | 3·92 | 6·77 | 14·30 | 20·61 | 14·39 | 6·00 | ... | 0·45 | 68·15 |
| Mean. | 0·77 | 0·50 | 0·44 | 0·48 | 2·34 | 6·70 | 10·93 | 10·32 | 8·49 | 3·01 | 0·08 | 0·08 | 44·14 |

No. 149. BARH.

Latitude N. 25° 29′. Longitude E. 85° 45′. Elevation 152 feet.

Administration : BENGAL. Rainfall Province No. VI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ? | ? | ? | ? | ? | 4·09 | 8·39 | 15·43 | 12·02 | 7·93 | ... | ... | ? |
| 1871 | 0·80 | ... | 0·17 | 0·32 | 2·28 | 2·59 | 16·68 | 3·03 | 11·54 | 0·23 | ... | 0·20 | 37·84 |
| 1872 | 1·68 | 0·59 | ... | 0·54 | 2·33 | 2·81 | 10·09 | 5·48 | 4·44 | 2·95 | ... | ... | 30·91 |
| 1873 | 0·11 | 0·05 | 0·60 | 0·09 | 0·60 | 3·30 | 12·17 | 14·62 | 1·64 | ... | 0·12 | ... | 33·30 |
| 1874 | 0·29 | 1·05 | 1·37 | 0·11 | 0·07 | 8·60 | 6·00 | 9·00 | 11·46 | 4·58 | ... | ... | 42·53 |
| 1875 | 0·37 | ... | ... | 0·16 | 2·91 | 10·91 | 12·89 | 9·60 | 4·61 | ... | ... | ... | 41·45 |
| 1876 | ... | 0·24 | 0·20 | ... | ... | 4·00 | 6·94 | 15·77 | 14·89 | 3·93 | ... | ... | 45·97 |
| 1877 | 1·17 | 1·57 | 0·43 | 0·05 | 8·63 | 0·61 | 11·73 | 2·52 | 5·21 | 8·27 | ... | 0·16 | 40·35 |
| 1878 | 0·80 | 0·48 | ... | 0·16 | 3·35 | 3·86 | 15·30 | 13·94 | 4·94 | 0·26 | 2·30 | ... | 45·39 |
| 1879 | ... | 1·04 | ... | .. | 0·55 | 7·98 | 16·00 | 4·85 | 17·00 | 5·74 | ... | ... | 53·16 |
| 1880 | 0·18 | 1·70 | ... | ... | 2·69 | 1·51 | 23·81 | 14·47 | 1·43 | 2·43 | 0·10 | ... | 48·32 |
| 1881 | ... | 0·06 | 1·35 | 0·04 | 2·92 | 5·88 | 10·07 | 12·56 | 7·31 | 5·10 | ... | ... | 45·29 |
| 1882 | ... | 0·77 | ... | ... | 1·64 | 7·65 | 10·28 | 6·28 | 1·52 | 3·81 | 1·15 | ... | 33·10 |
| 1883 | 1·16 | 0·12 | 0·40 | 0·02 | 0·05 | 14·39 | 11·29 | 8·66 | 4·01 | 0·47 | ... | ... | 40·57 |
| Mean | 0·50 | 0·59 | 0·35 | 0·11 | 2·16 | 5·58 | 12·26 | 9·73 | 7·29 | 3·26 | 0·26 | 0·03 | 42·12 |
| 1884 | ... | ... | ... | ... | 1·45 | 4·59 | 8·38 | 5·63 | 8·28 | 4·95 | ... | ... | 33·28 |
| 1885 | ... | ... | 0·40 | ... | 1·86 | 1·22 | 13·18 | 10·50 | 9·80 | ... | ... | 1·95 | 38 91 |
| 1886 | ... | ... | 0·10 | 0·50 | 2·00 | 3·55 | 19·10 | 10·50 | 11·10 | 3·55 | 0·20 | 0·08 | 50·68 |
| Mean | 0·41 | 0·48 | 0·31 | 0·12 | 2·08 | 5·15 | 12·49 | 9·58 | 7·72 | 3·19 | 0·22 | 0·14 | 41·89 |

No. 150. SASSERAM.

Latitude N. 24° 57′. Longitude E. 84° 3′. Elevation 260 feet.

Administration : BENGAL. Rainfall Province No. VI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | P | P | P | 0·30 | 0·10 | 7·04 | 20·32 | 10·95 | 4·70 | 13·93 | ... | ... | P |
| 1871 | ... | ... | ... | 0·15 | 1·89 | 5·25 | 15·71 | 13·15 | 16·36 | ... | ... | 0·55 | 53·06 |
| 1872 | 0·64 | 1·22 | 0·05 | 0·15 | 0·46 | 4·24 | 9·70 | 8·29 | 5·90 | 0·45 | ... | 0·06 | 31·16 |
| 1873 | ... | 0·11 | 0·55 | ... | 0·65 | 1·70 | 22·61 | 7·62 | 1·67 | ... | ... | ... | 34·91 |
| 1874 | 0·66 | 1·04 | 0·07 | ... | ... | 15·21 | 6·05 | 17·38 | 3·78 | 11·48 | ... | ... | 55·67 |
| 1875 | 0·75 | 0·40 | ... | 0·26 | 0·40 | 8·81 | 12·65 | 25·02 | 2·69 | ... | ... | ... | 50·98 |
| 1876 | ... | ... | 0·05 | ... | ... | 2·58 | 11·22 | 10·29 | 7·99 | 1·94 | ... | ... | 34·07 |
| 1877 | 1·40 | 2·29 | 0·05 | 0·42 | 3·77 | 1·10 | 4·42 | 8·24 | 4·03 | 0·97 | ... | 0·56 | 27·25 |
| 1878 | 0·80 | 0·13 | 0·20 | 0·38 | 2·10 | 5·01 | 9·54 | 11·75 | 4·30 | 0·15 | 0·67 | ... | 35·03 |
| 1879 | 0·08 | 0·91 | ... | ... | ... | 10·14 | 18·62 | 8·08 | 19·43 | 5·34 | ... | ... | 62·60 |
| 1880 | ... | 1·93 | ... | ... | 1·09 | 0·95 | 15·46 | 11·82 | 4·05 | 4·66 | 1·40 | ... | 41·36 |
| 1881 | 0·14 | 0·58 | 1·22 | 0·15 | 1·78 | 4·84 | 13·17 | 14·28 | 2·74 | 4·68 | ... | ... | 43·53 |
| 1882 | ... | 0·03 | ... | 0·15 | 0·99 | 3·19 | 6·23 | 8·65 | 6·16 | 6·24 | 1·49 | ... | 33·13 |
| 1883 | 1·46 | ... | 0·59 | ... | 0·89 | 7·55 | 8·72 | 2·91 | 7·58 | 1·03 | ... | ... | 30·73 |
| Mean | 0·46 | 0·66 | 0·21 | 0·14 | 1·01 | 5·54 | 12·46 | 11·32 | 6·53 | 3·63 | 0·25 | 0·08 | 42·29 |
| 1884 | ... | ... | ... | ... | 0·15 | 2·88 | 5·65 | 15·10 | 7·88 | 3·13 | ... | ... | 34·79 |
| 1885 | 0·82 | ... | 0·33 | ... | 1·52 | 3·38 | 5·43 | 18·78 | 6·79 | ... | ... | 3·77 | 40·82 |
| 1886 | 0·10 | ... | 1·52 | ... | 0·56 | 6·46 | 15·62 | 6·49 | 15·06 | 7·70 | 0·30 | 0·32 | 54·13 |
| Mean | 0·43 | 0·54 | 0·29 | 0·12 | 0·96 | 5·31 | 11·83 | 11·70 | 7·12 | 3·63 | 0·23 | 0·31 | 42·47 |

No. 151. GYA.

Latitude N. 24° 42′. Longitude E. 85° 2′. Elevation 375 feet.

Administration : BENGAL. Rainfall Province No. VI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1849 | 2·02 | ... | ... | ... | 0·25 | 6·25 | 6·75 | 3·50 | 9·00 | 12·25 | ... | ... | 40·02 |
| 1850 | 2·75 | 0·75 | ... | ... | ... | 11·10 | 15·40 | 12·45 | 11·40 | 1·80 | ... | ... | 55·65 |
| 1851 | 0·62 | 1·12 | 0·25 | ... | ... | 1·50 | 8·65 | 3·80 | 4·60 | 3·15 | ... | ... | 23·69 |
| 1852 | 0·50 | ... | 1·55 | 0·90 | 0·50 | 6·75 | 10·55 | 2·35 | 1·15 | 0·40 | ... | 0·45 | 25·10 |
| 1853 | 2·25 | 0·05 | ... | 0·10 | 0·22 | 1·30 | 9·15 | 5·15 | P | 0·25 | 0·02 | ... | P |
| 1854 | ... | 0·50 | ... | 0·80 | ... | 4·85 | 3·30 | 7·50 | 2·50 | 0·40 | 0·75 | ... | 20·60 |
| 1855 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | ... | ... | ... | ... | 3·20 | 11·80 | 9·50 | 3·90 | 1·00 | ... | P | 29·40? |
| 1861 to 1866 | Not on record. | | | | | | | | | | | | |

GYA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | 1·00 | 2·50 | ? | 1·30 | 5·21 | 12·12 | 18·44 | 13·01 | 9·68 | 1·12 | ... | ... | 64·58 ? |
| 1868 | 0·50 | ... | ? | ... | ... | 6·62 | 7·37 | 6·18 | 6·54 | ... | ... | ... | 27·41 ? |
| 1869 | ... | ... | 2·87 | ... | 0·52 | 10·00 | 9·41 | 10·06 | 10·89 | 4·69 | ... | 0·20 | 48·64 |
| 1870 | 0·54 | ... | 0·28 | 0·27 | 0·42 | 4·53 | 11·56 | 10·56 | 4·06 | 6·93 | ... | ... | 39·15 |
| 1871 | ... | 0·17 | 0·15 | 2·59 | 1·73 | 5·68 | 16·02 | 15·45 | 6·14 | 0·04 | ... | 0·76 | 48·73 |
| 1872 | 0·43 | 1·81 | ... | 0·75 | 0·15 | 1·64 | 10·67 | 9·82 | 5·48 | 1·38 | ... | ... | 32·13 |
| 1873 | 0·17 | ... | 0·94 | ... | 0·30 | 1·52 | 18·44 | 10·01 | 4·13 | ... | ... | 0·06 | 35·57 |
| 1874 | *1·27 | 1·26 | 0·07 | ... | 0·07 | 11·58 | 8·10 | 15·13 | 6·10 | 2·32 | ... | ... | 45·90 |
| 1875 | 1·03 | 0·57 | ... | ... | 1·22 | 14·19 | 7·01 | 6·94 | 7·29 | ... | ... | ... | 38·25 |
| 1876 | ... | ... | ... | ... | 0·11 | 2·84 | 17·61 | 9·47 | 9·65 | 6·22 | ... | ... | 45·90 |
| 1877 | 1·08 | 2·18 | 0·47 | 0·45 | 11·12 | 0·54 | 7·21 | 9 30 | 9·34 | 1·92 | ... | 0·67 | 44·28 |
| 1878 | 0·85 | 0·23 | 0·41 | 0·65 | 2·41 | 6 85 | 9 28 | 10·82 | 9·30 | 0·22 | 3·34 | ... | 44·36 |
| 1879 | ... | 0·35 | ... | ... | 0·16 | 6·67 | 12·54 | 13·05 | 8·53 | 3·21 | ... | ... | 44·51 |
| 1880 | 0·01 | 2·12 | ... | 0·09 | 1·66 | 3·79 | 17·26 | 13·32 | 5·65 | 1·96 | 0·11 | 0·01 | 45·98 |
| 1881 | 0·20 | 0·08 | 1·62 | 0·03 | 1·62 | 9·77 | 13·49 | 14·79 | 1·74 | 5·58 | ... | ... | 48·92 |
| 1882 | ... | 0 32 | ... | 0·64 | 1·03 | 7·92 | 10·72 | 8·78 | 11·82 | 3·57 | 0·78 | ... | 45·58 |
| 1883 | 1·65 | 0·07 | 0·30 | ... | 0·89 | 14·60 | 18·68 | 5·47 | 4·18 | 0·52 | 0·11 | 0·01 | 46·48 |
| Mean | 0·70 | 0·59 | 0·41 | 0·37 | 1·23 | 6·49 | 11·65 | 9·43 | 6·66 | 2·46 | 0·21 | 0·09 | 40·29 |
| 1884 | ... | ... | ... | ... | 0·49 | 2·95 | 7·89 | 7·55 | 3·04 | 2·04 | ... | ... | 23·96 |
| 1885 | 0·87 | 0·27 | 0·53 | 0·06 | 0·30 | 3·24 | 13·92 | 20·13 | 10·11 | ... | ... | 3·02 | 52·45 |
| 1886 | 0·38 | 0·02 | 1·37 | ... | 1·53 | 5·93 | 20·06 | 14·09 | 16·86 | 5 81 | 0·73 | 0·01 | 67·39 |
| Mean | 0·67 | 0·53 | 0·43 | 0·33 | 1·18 | 6·22 | 11·93 | 9·93 | 7·04 | 2·47 | 0·22 | 0·20 | 41·15 |

No. 152. JAMOOEE.

Latitude N. 24° 56′. Longitude E. 86° 16′. Elevation 600 feet.

Administration: BENGAL. Rainfall Province No. VI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ? | ? | ? | ? | 2·13 | 7·44 | 12·36 | 12·79 | 13·89 | 4·63 | ... | ... | ? |
| 1871 | ... | 0·35 | 1·43 | 1·70 | 4·65 | 6·80 | 16·77 | 8·12 | 8·34 | ... | ... | ... | 48·16 |
| 1872 | ? | 1·57 | ... | 2·03 | 1·68 | 2·06 | 9·73 | 9·44 | 4·50 | 3·03 | ... | ... | 34·04? |
| 1873 | 0·73 | ... | 0·50 | ... | 0·70 | 4·20 | 23·50 | 10·05 | 3·49 | ... | ... | 0·11 | 43·28 |
| 1874 | 2 60 | 1·84 | ... | 1·30 | 0·52 | 13·79 | 5·37 | 12·32 | 8·13 | 4·86 | ... | ... | 50·73 |
| 1875 | 0·60 | ... | ... | 0·40 | 1·02 | 11·72 | 11·97 | 15·12 | 4·65 | ... | ... | ... | 45·48 |
| 1876 | ... | ... | 0·10 | 0·80 | ... | 6·24 | 8·32 | 19·92 | 15·15 | 3·79 | ... | ... | 54·32 |
| 1877 | 2·15 | 2·44 | 0·04 | 0·42 | 5·87 | 1·51 | 7·38 | 3·79 | 8·63 | 1·54 | ... | 0·44 | 34·21 |
| 1878 | 1·02 | 0·53 | ... | 0·17 | 5·58 | 2·08 | 12·94 | 10·60 | 9·08 | 1·49 | 0·47 | ... | 43·96 |
| 1879 | ... | 0·65 | ... | ... | 0·58 | 4·48 | 13·82 | 6·71 | 8·46 | 3·39 | ... | ... | 38·09 |
| 1880 | ... | 3·11 | ... | ... | 1·34 | 6·69 | 13·55 | 9·74 | 4·97 | 1·47 | ... | 0 05 | 40·92 |
| 1881 | ... | ... | 1·92 | 0·95 | 0·98 | 12·94 | 12·01 | 15·16 | 1·97 | 3·54 | ... | ... | 49·47 |

JAMOOEE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | ... | 0·17 | ... | 0·03 | 2·94 | 7·64 | 9·84 | 8·98 | 4·82 | 4·41 | 0·76 | ... | 39·59 |
| 1883 | 1·22 | ... | 0·46 | ... | 0·12 | 6·83 | 14·24 | 9·23 | 5·82 | 1·00 | ... | ... | 38·92 |
| Mean | 0·69 | 0·82 | 0·34 | 0·60 | 2·01 | 6·74 | 12·27 | 10·86 | 7·28 | 2·37 | 0·09 | 0·04 | 44·11 |
| 1884 | ... | 0·11 | ... | ... | 1·45 | 6·29 | 7·66 | 14·25 | 3·92 | 2·33 | ... | ... | 36·01 |
| 1885 | 0·28 | ... | 0·18 | 0·20 | 2·03 | 2·46 | 13·46 | 20·07 | 10·64 | ... | ... | 0·96 | 50·28 |
| 1886 | 0·21 | 0·02 | 0·77 | ... | 2·08 | 8·47 | 17·87 | 8·53 | 11·11 | 9·50 | 0·35 | ... | 58·91 |
| Mean | 0·59 | 0·67 | 0·34 | 0·50 | 1·98 | 6·57 | 12·40 | 11·46 | 7·50 | 2·65 | 0·09 | 0·09 | 44·84 |

No. 153. , MUDDEHPOORA.

Latitude N. 25° 56′. Longitude E. 86° 50′. Elevation 150 feet.

Administration: BENGAL. Rainfall Province No. VI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | P | P | P | P | 1·69 | 7·35 | 11·64 | 10·10 | 11·88 | 17·77 | ... | ... | P |
| 1871 | ... | 1·35 | 0·48 | 3·49 | 4·22 | 10·17 | 11·89 | 11·77 | 13·10 | 0·10 | ... | ... | 56·57 |
| 1872 | 0·50 | 0·50 | ... | 0·20 | 4·28 | 5·43 | 14·23 | 7·12 | 12·23 | 4·00 | ... | ... | 48·49 |
| 1873 | ... | ... | 1·00 | 0·75 | 0·50 | 6·34 | 9·15 | 13·50 | 3·30 | ... | ... | 0·10 | 34·64 |
| 1874 | 0·10 | 0·94 | 0·01 | 1·90 | 0·40 | 14·53 | 12·70 | 9·30 | 23·60 | 7·90 | ... | ... | 71·38 |
| 1875 | 1·26 | ... | ... | 1·60 | 4·10 | 6·61 | 6·72 | 17·62 | 4·35 | ... | ... | ... | 42·26 |
| 1876 | 0·10 | ... | ... | 1·20 | 1·41 | 4·74 | 12·32 | 16·94 | 6·73 | 4·54 | ... | ... | 47·98 |
| 1877 | 2·20 | 0·56 | 0·15 | 1·83 | 3·30 | 2·55 | 17·70 | 7·55 | 11·70 | 3·05 | ... | 0·60 | 51·19 |
| 1878 | 0·30 | 0·50 | 0·10 | 1·30 | 7·79 | 2·20 | 15·30 | 17·75 | 14·90 | 1·40 | 0·50 | ... | 62·04 |
| 1879 | ... | 0·90 | ... | ... | 3·86 | 2·87 | 15·67 | 15·74 | 21·55 | 6·72 | ... | ... | 67·31 |
| 1880 | 0·35 | 3·70 | 1·10 | ... | 3·50 | 9·84 | 19·07 | 12·20 | 3·70 | 4·20 | 0·14 | 0·13 | 57·93 |
| 1881 | ... | ... | 1·09 | 0·30 | 5·60 | 11·15 | 8·62 | 9·10 | 5·44 | 8·03 | ... | ... | 49·33 |
| 1882 | ... | 0·96 | 0·35 | ... | 8·24 | 7·37 | 4·49 | 13·81 | 4·14 | 6·06 | 0·38 | ... | 45·80 |
| 1883 | 0·67 | 0·09 | 0·24 | 0·96 | 2·74 | 29·51 | 12·51 | 7·48 | 4·17 | 0·03 | ... | ... | 58·40 |
| Mean | 0·42 | 0·73 | 0·35 | 1·04 | 3·69 | 8·62 | 12·29 | 12·14 | 10·06 | 4·56 | 0·07 | 0·06 | 54·03 |
| 1884 | 0·04 | 0·22 | 0·02 | ... | 2·55 | 7·53 | 7·11 | 7·99 | 3·31 | 10·74 | ... | ... | 39·51 |
| 1885 | 0·38 | ... | 0·53 | 0·02 | 3·17 | 8·71 | 7·44 | 9·56 | 15·13 | 0·11 | ... | 0·73 | 45·78 |
| 1886 | 0·12 | 0·24 | 0·08 | 0·75 | 3·19 | 9·26 | 14·77 | 14·83 | 11·42 | 4·62 | ... | 0·02 | 59·30 |
| Mean | 0·38 | 0·62 | 0·32 | 0·89 | 3·56 | 8·60 | 11·84 | 11·90 | 10·04 | 4·66 | 0·06 | 0·09 | 52·96 |

No. 154. MONGHYR.

Latitude N. 25° 23′. Longitude E. 86° 30′. Elevation 148 feet.

Administration: BENGAL. Rainfall Province No. VI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | ? | ? | ? | ? | 1·25 | 8·55 | 2·85 | 9·75 | 5·65 | 8·95 | ... | 0·35 | ? |
| 1849 | 1·20 | 0·50 | 0·20 | ... | 2·15 | 2·35 | 6·00 | 6·70 | 5·75 | 1·30 | ... | ... | 26·15 |
| 1850 | 0·40 | 1·30 | 0·10 | ... | ... | 9·30 | 5·30 | 9·60 | 9·30 | 1·70 | 0·15 | ... | 37·15 |
| 1851 | 0·85 | 1·25 | 0·20 | ... | 1·40 | 10·45 | 14·40 | 3·50 | 8·10 | 6·65 | ... | ... | 46·80 |
| 1852 | 0·45 | ... | 1·75 | 0·60 | 0·45 | 3·10 | ? | ? | ? | ? | ? | ? | ? |
| 1853 | Not on record. | | | | | | | | | | | | |
| 1854 | ... | 0·65 | ... | ... | 1·35 | 13·25 | 7·85 | 11·80 | 12·30 | ... | 5·35 | ... | 52·55 |
| 1855 and 1856 | Not on record. | | | | | | | | | | | | |
| 1857 | ... | 0·20 | 0·20 | 0·90 | 2·30 | 6·80 | ? | ? | ? | ? | ? | ... | ? |
| 1858 | Not on record. | | | | | | | | | | | | |
| 1859 | ? | 2·60 | 1·35 | 1·60 | ? | 17·00 | 9·75 | 11·93 | 8·90 | 13·15 | ... | ? | ? |
| 1860 | ... | 0·20 | 0·25 | 0·20 | 0·40 | 2·15 | 10·28 | 6·20 | 6·80 | 0·30 | ... | ... | 26·78 |
| 1861 | ... | ... | 1·15 | 0·35 | 4·80 | 5·55 | 15·90 | 3·05 | 11·75 | 17·15 | 0·30 | 0·15 | 60·15 |
| 1862 | ... | ... | 0·85 | 0·40 | 0·95 | 9·20 | 8·00 | 9·80 | 4·15 | 7·10 | ... | ... | 40·45 |
| 1863 | 0·70 | ... | ... | 0·90 | 0·65 | 3·55 | 6·95 | 10·90 | 14·80 | 2·00 | 0·40 | ... | 40·85 |
| 1864 | 0·75 | 0·02 | 0·05 | ... | 0·80 | 2·50 | 24·60 | 7·60 | 3·10 | 0·50 | ... | ... | 41·92 |
| 1865 | ... | 1·20 | 1·45 | 1·40 | 5·30 | 3·75 | 15·05 | 5·85 | 1·80 | ... | ... | 1·00 | 36·80 |
| 1866 | 0·60 | 3·00 | ... | 1·20 | ... | 6·50 | 5·20 | 10·10 | 13·55 | 5·40 | ... | ... | 45·55 |
| 1867 | 1·10 | 0·85 | 1·65 | 0·70 | 2·70 | 13·07 | 6·62 | 8·15 | 5·25 | 3·40 | ... | ... | 43·49 |
| 1868 | 0·30 | 1·65 | 0·58 | ... | 1·93 | 3·13 | 8·67 | 12·75 | 3·31 | 0·02 | ... | 0·40 | 32·74 |
| 1869 | 0·10 | 0·02 | 0·60 | ... | 1·59 | 4·35 | 15·65 | 6·02 | 6·90 | 2·20 | ... | ... | 37·43 |
| 1870 | 0·16 | ... | 0·07 | 0·78 | ... | 5·33 | 8·81 | 38·59 | 8·39 | 8·59 | ... | ... | 70·72 |
| 1871 | ... | 0·16 | ... | 1·28 | 1·80 | 9·80 | 18·85 | 12·50 | 13·15 | 0·48 | ... | ... | 58·02 |
| 1872 | 1·27 | 0·81 | ... | 0·48 | 0·53 | 1·18 | 13·20 | 9·27 | 10·89 | 3·63 | ... | ... | 41·26 |
| 1873 | 0·34 | 0·02 | 1·07 | 0·18 | 1·12 | 2·63 | 13·30 | 15·32 | 3·68 | ... | 0·02 | 0·04 | 37·72 |
| 1874 | 0·40 | 1·26 | 0·33 | 0·31 | 1·85 | 15·73 | 11·48 | 8·68 | 13·07 | 6·48 | ... | ... | 59·59 |
| 1875 | 0·97 | ... | ... | 0·55 | 4·15 | 7·57 | 14·84 | 14·13 | 4·25 | 0·05 | ... | ... | 46·51 |
| 1876 | ... | ... | ... | 0·58 | 0·43 | 8·91 | 10·77 | 17·78 | 10·63 | 5·20 | ... | ... | 54·30 |
| 1877 | 1·06 | 1·25 | 0·12 | 0·38 | 7·12 | 0·75 | 12·56 | 4·67 | 7·91 | 3·64 | ... | 0·33 | 39·79 |
| 1878 | 0·63 | 0·25 | 0·05 | 0·43 | 3·94 | 3·22 | 14·70 | 15·91 | 6·39 | 1·15 | 1·12 | ... | 47·79 |
| 1879 | ... | 1·28 | 0·01 | ... | 0·38 | 14·26 | 19·21 | 12·65 | 15·34 | 1·69 | ... | ... | 64·82 |
| 1880 | 0·15 | 2·75 | 0·29 | ... | 1·57 | 3·77 | 15·47 | 13·68 | 4·51 | 3·49 | 0·08 | 0·08 | 45·84 |
| 1881 | ... | 0·11 | 0·88 | 0·83 | 1·00 | 6·67 | 10·77 | 12·78 | 4·97 | 9·76 | ... | ... | 47·77 |
| 1882 | ... | 1·04 | ... | ... | 3·62 | 6·18 | 5·67 | 12·36 | 5·56 | 4·04 | 0·97 | ... | 39·44 |
| 1883 | 0·62 | ... | 0·89 | 0·25 | 1·32 | 8·82 | 8·20 | 4·35 | 3·86 | 0·65 | ... | ... | 28·96 |
| Mean | 0·40 | 0·72 | 0·45 | 0·46 | 1·83 | 6·86 | 11·36 | 10·85 | 7·87 | 3·96 | 0·28 | 0·08 | 45·12 |
| 1884 | ... | 0·03 | 0·03 | 0·01 | 0·65 | 7·20 | 8·95 | 6·80 | 2·96 | 5·38 | ... | ... | 32·01 |
| 1885 | 0·16 | 0·01 | 0·54 | 0·04 | 1·27 | 3·45 | 5·07 | 10·92 | 17·91 | 0·64 | ... | 1·08 | 41·09 |
| 1886 | 0·14 | 0·55 | 0·42 | 0·36 | 3·15 | 6·39 | 17·30 | 11·05 | 21·67 | 4·88 | 0·42 | ... | 66·13 |
| Mean | 0·37 | 0·68 | 0·44 | 0·43 | 1·82 | 6·75 | 11·28 | 10·73 | 8·44 | 3·93 | 0·26 | 0·11 | 45·24 |

No. 155. KISSENGUNGE.

Latitude N. 26° 7′. Longitude E. 87° 58′. Elevation 157 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | ? | ? | ? | ? | ? | ? | 22·79 | 15·44 | 20·81 | 0·57 | ... | ... | ? |
| 1872 | 1·36 | 0·06 | ... | 0·23 | 4·01 | 13·17 | 23·34 | 22·00 | 12·02 | 4·62 | ... | ... | 80·81 |
| 1873 | ... | 0·03 | 0·86 | 1·55 | 1·37 | 8·81 | 15·12 | 6·96 | 3·49 | ... | ... | 0·69 | 38·88 |
| 1874 | 0·64 | 1·41 | 0·86 | 1·11 | 2·15 | 23·28 | 23·48 | 14·97 | 21·05 | 7·86 | ... | ... | 96·81 |
| 1875 | 0·96 | ... | 0·10 | 1·45 | 14·98 | 11·94 | 7·81 | 12·73 | 3·38 | ... | ... | ... | 53·35 |
| 1876 | ... | ... | 0·06 | 1·19 | 5·80 | 20·42 | 12·73 | 19·43 | 7·81 | 4·16 | 0·25 | ... | 71·85 |
| 1877 | 1·07 | 0·26 | 1·54 | 1·86 | 7·80 | 6·39 | 15·92 | 5·62 | 25·11 | 0·27 | ... | 0·10 | 65·94 |
| 1878 | 0·48 | 0·33 | ... | 3·14 | 3·16 | 12·04 | 24·04 | 22·59 | 18·21 | 0·61 | 0·25 | ... | 81·85 |
| 1879 | ... | 1·41 | ... | ... | 4·80 | 10·22 | 20·07 | 13·87 | 17·54 | 4·53 | ... | 0·27 | 72·71 |
| 1880 | 0·80 | 2·27 | 1·40 | 0·09 | 8·49 | 35·91 | 17·30 | 16·16 | 6·73 | 6·61 | ... | 0·62 | 96·38 |
| 1881 | ... | 0·25 | 2·58 | 0·28 | 3·78 | 20·50 | 9·10 | 14·13 | 20·02 | 5·31 | ... | ... | 76·95 |
| 1882 | ... | 1·15 | 1·94 | 1·00 | 4·70 | 9·88 | 9·16 | 19·51 | 7·52 | 8·07 | 0·31 | ... | 63·24 |
| 1883 | 0·92 | ... | ... | 3·02 | 2·97 | 22·63 | 10·34 | 16·40 | 8·30 | ... | ... | 0·12 | 64·70 |
| Mean | **0·52** | **0·60** | **0·78** | **1·24** | **5·33** | **16·27** | **16·25** | **15·37** | **13·31** | **3·28** | **0·06** | **0·14** | **73·15** |
| 1884 | 0·12 | 0·11 | 0·24 | 4·00 | 3·45 | 16·11 | 21·61 | 14·24 | 4·66 | 7·94 | ... | ... | 72·48 |
| 1885 | 0·90 | 0·11 | 0·36 | 1·27 | 4·46 | 10·21 | 15·01 | 10·40 | 21·00 | 0·14 | ... | 0·39 | 64·25 |
| 1886 | 0·12 | 0·12 | 0·11 | 0·12 | 8·29 | 12·49 | 24·19 | 29·56 | 29·57 | 1·15 | ... | 0·40 | 106·12 |
| Mean | **0·49** | **0·50** | **0·67** | **1·35** | **5·35** | **15·60** | **17·00** | **15·88** | **14·26** | **3·24** | **0·05** | **0·16** | **74·55** |

No. 156. PURNEAH.

Latitude N. 25° 50′. Longitude E. 87° 34′. Elevation 125 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ? | ? | ? | ? | ? | ? | ? | ? | ? | 9·05 | ... | ... | ? |
| 1871 | ... | 0·37 | 0·41 | 3·40 | 3·10 | 14·26 | 16·56 | 23·83 | 18·20 | 0·20 | ... | ... | 80·33 |
| 1872 | 1·20 | 0·64 | ... | 0·80 | 1·98 | 14·29 | 17·19 | 7·76 | 10·89 | 5·46 | ... | ... | 60·21 |
| 1873 | 0·27 | ... | 0·82 | 2·56 | 0·44 | 6·34 | 10·98 | 10·60 | 6·75 | ... | ... | 0·37 | 39·13 |
| 1874 | 0·11 | 1·59 | ... | 3·05 | 0·76 | 13·78 | 17·84 | 11·20 | 17·91 | 7·32 | ... | ... | 73·56 |
| 1875 | 0·68 | ... | ... | 0·51 | 4·71 | 8·95 | 9·27 | 14·95 | 5·09 | ... | ... | ... | 44·16 |
| 1876 | 0·13 | ... | ... | 0·73 | 4·38 | 16·51 | 17·53 | 13·39 | 7·07 | 5·11 | ... | ... | 64·85 |
| 1877 | 0·98 | 0·73 | 0·19 | 2·58 | 7·95 | 2·53 | 17·78 | 6·35 | 15·27 | 0·97 | ... | 0·23 | 55·56 |
| 1878 | 0·09 | 0·58 | 0·46 | 2·36 | 4·24 | 12·75 | 15·25 | 11·59 | 16·10 | 0·06 | 0·89 | ... | 64·37 |
| 1879 | ... | 0·94 | ... | ... | 2·82 | 4·57 | 25·52 | 28·53 | 61·02 | 7·39 | ... | ... | 131·39 |
| 1880 | 0·48 | 1·96 | 0·16 | 0·10 | 3·92 | 18·37 | 14·26 | 13·78 | 4·67 | 4·28 | ... | 1·66 | 63·64 |
| 1881 | ... | ... | 1·80 | 0·36 | 3·46 | 22·11 | 7·05 | 13·43 | 11·42 | 9·31 | ... | ... | 68·94 |
| 1882 | ... | 2·67 | 1·35 | 0·40 | 3·09 | 10·45 | 4·91 | 19·73 | 5·74 | 6·26 | 0·35 | ... | 54·95 |
| 1883 | 0·96 | 0·07 | 0·11 | 1·13 | 2·62 | 10·10 | 8·90 | 8·88 | 5·42 | 0·09 | ... | 0·10 | 38·38 |
| Mean | **0·38** | **0·73** | **0·41** | **1·38** | **3·34** | **11·92** | **14·08** | **14·16** | **14·32** | **3·96** | **0·09** | **0·17** | **64·94** |

PURNEAH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 0·07 | 0·08 | ... | 1·25 | 3·32 | 8·13 | 16·07 | 7·15 | 4·55 | 8·86 | ... | ... | 49·78 |
| 1885 | 0·21 | 0·04 | 0·13 | 0·62 | 3·35 | 5·99 | 12·40 | 13·13 | 19·69 | 0·77 | ... | 0·56 | 56·89 |
| 1886 | 0·26 | 0·06 | 0·53 | 0·42 | 2·35 | 10·14 | 18·12 | 28·17 | 19·85 | 2·63 | 0·08 | 0·04 | 82·65 |
| Mean | 0·34 | 0·61 | 0·37 | 1·27 | 3·28 | 11·20 | 14·35 | 14·55 | 14·39 | 3·99 | 0·08 | 0·17 | 64·60 |

No. 157. BHAGALPUR.

Latitude N. 25° 15′. Longitude E. 87° 2′. Elevation 159 feet.

Administration: BENGAL. Rainfall Province No. VII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | P | P | P | P | 1·45 | 6·85 | 4·80 | 9·60 | 8·00 | 10·90 | ... | ... | P |
| 1849 | 0·80 | 1·00 | ... | ... | 1·90 | 4·00 | 5·25 | 14·35 | 3·65 | 1·30 | ... | ... | 32·25 |
| 1850 | 2·10 | 1·25 | ... | ... | 0·90 | 6·85 | 12·00 | 17·90 | 12·10 | 1·15 | ... | ... | 54·25 |
| 1851 | 0·75 | 1·50 | ... | 0·80 | 0·80 | 10·45 | 14·40 | 3·50 | 2·35 | 7·90 | ... | ... | 42·45 |
| 1852 | ... | ... | 2·55 | 0·20 | P | P | P | P | P | P | P | P | P |
| 1853 | 0·80 | ... | P | 0·10 | 0·10 | 11·99 | P | 7·55 | P | 2·50 | ... | ... | P |
| 1854 | ... | 1·50 | ... | 0·10 | 2·30 | 12·40 | 6·50 | 14·40 | 8·50 | 3·00 | 1·80 | ... | 50·50 |
| 1855 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | ... | ... | 1·00 | 5·00 | P | 13·20 | 8·59 | 3·77 | 1·82 | P | P | P |
| 1861 | ... | ... | ... | ... | 2·72 | 7·80 | 17·73 | 3·65 | 14·35 | 24·00 | ... | 0·30 | 70·55 |
| 1862 | ... | ... | 1·00 | 0·52 | 2·70 | 6·75 | 7·57 | 13·30 | 8·10 | 11·20 | ... | ... | 51·14 |
| 1863 | ... | ... | ... | 1·90 | 1·60 | 5·20 | 10·56 | 11·10 | 11·90 | ... | ... | ... | 42·26 |
| 1864 | 0·45 | 1·10 | ... | 0·15 | 2·30 | 4·70 | 15·60 | 16·10 | 9·00 | 0·20 | 0·20 | ... | 49·80 |
| 1865 | 0·15 | 0·80 | 1·50 | 3·60 | 9·45 | 6·10 | 17·15 | 16·00 | 9·20 | ... | ... | 0·90 | 64·85 |
| 1866 | 2·10 | 3·00 | ... | 4·50 | 0·10 | 20·40 | 11·40 | 12·20 | 13·70 | 11·80 | ... | ... | 79·20 |
| 1867 | 1·00 | 1·80 | 1·20 | 1·80 | 2·40 | 12·04 | 10·55 | 5·00 | 10·44 | 2·08 | 0·34 | ... | 48·65 |
| 1868 | 0·21 | 1·24 | 0·24 | ... | 5·78 | 5·41 | 12·24 | 18·21 | 6·06 | ... | ... | ... | 49·39 |
| 1869 | ... | 0·10 | 0·44 | ... | 2·60 | 15·03 | 9·60 | 7·00 | 5·30 | 2·40 | ... | ... | 42·47 |
| 1870 | 0·50 | ... | ... | 0·15 | 0·92 | 8·06 | 11·36 | 7·90 | 6·75 | 4·70 | ... | ... | 40·34 |
| 1871 | ... | 0·27 | 0·38 | 1·72 | 3·09 | 6·97 | 12·27 | 7·03 | 7·89 | ... | ... | ... | 39·62 |
| 1872 | 0·21 | 0·27 | ... | 1·78 | 0·79 | 5·44 | 8·43 | 6·21 | 6·57 | 4·28 | ... | ... | 33·98 |
| 1873 | 0·40 | ... | 0·60 | 0·60 | 0·15 | 5·37 | 11·07 | 6·68 | 3·67 | ... | 0·06 | 0·32 | 28·92 |
| 1874 | 0·33 | 1·47 | 0·05 | 0·96 | 2·13 | 15·99 | 8·21 | 7·04 | 8·89 | 5·71 | ... | ... | 50·78 |
| 1875 | 0·98 | 0·16 | ... | 0·24 | 2·80 | 6·25 | 10·22 | 11·37 | 4·45 | ... | ... | ... | 36·47 |
| 1876 | ... | ... | ... | 2·60 | 1·58 | 10·26 | 8·74 | 24·35 | 6·08 | 8·53 | ... | ... | 62·14 |
| 1877 | 1·65 | 0·93 | 0·24 | 0·33 | 9·42 | 0·58 | 17·14 | 7·39 | 8·71 | 4·66 | ... | 0·39 | 51·44 |
| 1878 | 1·41 | 0·68 | 0·17 | 1·55 | 4·48 | 6·58 | 14·20 | 11·22 | 5·68 | 0·07 | 3·53 | ... | 49·57 |
| 1879 | ... | 1·27 | 0·08 | .5. | 0·36 | 4·74 | 21·05 | 12·03 | 8·20 | 3·32 | ... | ... | 51·05 |
| 1880 | 0·25 | 2·78 | 0·88 | 1·50 | 1·66 | 5·20 | 7·84 | 8·99 | 3·78 | 3·31 | 0·02 | 0·19 | 36·40 |
| 1881 | ... | ... | 1·14 | 0·40 | 1·01 | 6·47 | 10·90 | 9·48 | 6·14 | 7·13 | ... | ... | 42·67 |
| 1882 | ... | 0·52 | ... | ... | 2·95 | 7·33 | 5·78 | 9·40 | 4·09 | 3·85 | 0·95 | ... | 34·87 |
| 1883 | 0·53 | 0·09 | 0·41 | 0·57 | 0·88 | 14·53 | 7·96 | 13·40 | 2·25 | 0·28 | ... | 0·26 | 41·16 |
| Mean | 0·49 | 0·72 | 0·38 | 0·90 | 2·48 | 8·27 | 11·16 | 10·70 | 7·23 | 4·20 | 0·24 | 0·08 | 46·85 |

BHAGALPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 0·04 | ... | ... | 0·15 | 1·57 | 12·44 | 10·11 | 2·69 | 3·84 | 6·64 | ... | ... | 37·48 |
| 1885 | 0·09 | 0·03 | 0·65 | 0·24 | 2·28 | 5·48 | 11·58 | 20·25 | 18·75 | ... | ... | 0·72 | 60·07 |
| 1886 | 0·09 | 0·64 | 0·77 | ... | 2·66 | 7·08 | 13·23 | 10·47 | 25·61 | 3·76 | 0·37 | ... | 64·68 |
| Mean | **0·45** | **0·68** | **0·35** | **0·83** | **0·93** | **8·27** | **11·21** | **10·74** | **7·81** | **4·14** | **0·23** | **0·10** | **45·74** |

No. 158. GODDA.

Latitude N. 24° 49′. Longitude E. 87° 18′. Elevation 200 feet.

Administration: BENGAL. Rainfall Province No. VII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | P | P | P | P | P | P | P | P | P | 4·17 | ... | 0·05 | P |
| 1873 | 0·62 | ... | 0·40 | 0·91 | 1·10 | 4·60 | 8·20 | 11·00 | 7·18 | ... | ... | 0·12 | 34·13 |
| 1874 | 0·50 | 2·25 | 0·50 | ... | 0·25 | 12·70 | 6·10 | 4·56 | 16·56 | 5·78 | ... | ... | 49·20 |
| 1875 | 0·84 | ... | ... | 0·35 | 3·50 | 6·12 | 6·76 | 11·27 | 7·13 | 0·33 | ... | ... | 36·30 |
| 1876 | ... | ... | 0·30 | 0·31 | 0·24 | 13·74 | 12·97 | 16·95 | 7·95 | 2·04 | ... | ... | 54·50 |
| 1877 | 0·32 | 1·93 | 0·39 | 0·66 | 3·97 | 2·22 | 12·61 | 10·59 | 8·25 | 2·83 | ... | 0·71 | 44·48 |
| 1878 | ... | 0·96 | 0·16 | 0·30 | 6·53 | 9·00 | 23·21 | 14·33 | 10·11 | 1·72 | 0·76 | ... | 67·08 |
| 1879 | ... | 0·70 | ... | ... | 0·84 | 8·62 | 12·01 | 14·20 | 12·56 | 4·36 | ... | ... | 53·29 |
| 1880 | ... | 2·20 | ... | 1·09 | 1·43 | 6·33 | 13·23 | 14·74 | 6·95 | 4·39 | ... | ... | 50·36 |
| 1881 | ... | ... | 1·66 | 0·67 | 4·77 | 8·76 | 12·49 | 12·49 | 14·41 | 7·10 | ... | ... | 62·35 |
| 1882 | ... | 0·30 | ... | 0·11 | 3·07 | 4·11 | 4·07 | 13·10 | 8·95 | 3·55 | 0·54 | ... | 37·80 |
| 1883 | 1·27 | ... | 0·62 | 0·15 | 0·94 | 5·52 | 12·44 | 7·79 | 8·39 | 0·35 | ... | 0·80 | 38·27 |
| Mean | **0·32** | **0·76** | **0·37** | **0·1** | **2·42** | **7·43** | **11·28** | **11·91** | **9·86** | **3·05** | **0·11** | **0·14** | **48·06** |
| 1884 | ... | 0·05 | ... | 0·22 | 3·56 | 5·35 | 7·12 | 2·86 | 2·02 | 6·28 | ... | ... | 27·46 |
| 1885 | 0·10 | ... | 0·18 | ... | 1·37 | 4·63 | 10·01 | 13·38 | 18·70 | 1·08 | ... | 0·42 | 49·87 |
| 1886 | ... | 0·15 | 0·45 | ... | 5·58 | 6·26 | 11·58 | 15·46 | 12·21 | 3·83 | 0·15 | ... | 55·67 |
| Mean | **0·26** | **0·61** | **0·33** | **0·34** | **2·65** | **7·00** | **10·91** | **11·62** | **10·10** | **3·19** | **0·10** | **0·14** | **47·25** |

No. 159. DARJEELING.

Latitude N. 27° 3′. Longitude E. 88° 18′. Elevation 6,912 feet.

Administration: BENGAL. Rainfall Province No. IX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1837 | 1·72 | 0·92 | 1·12 | 2·52 | 9·25 | 26·96 | 25·34 | 29·45 | 15·76 | 8·66 | 0·11 | 0·45 | 122·26 |
| 1838 to 1849 | Not on record. | | | | | | | | | | | | |
| 1850 | 2·05 | 2·75 | 4·40 | 0·55 | 2·74 | 3·05 | 32·02 | 40·02 | 20·00 | ... | ... | ... | 107·58 |
| 1851 | 3·45 | 2·40 | 4·00 | 4·55 | 6·75 | 31·00 | 27·15 | 16·70 | 19·60 | 9·35 | 1·50 | 0·05 | 126·50 |

DARJEELING—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1852 | ... | 0·75 | 17·40 | 2·70 | 9·19 | 17·30 | 35·40 | 15·35 | 15·15 | 0·45 | 0·05 | 0·80 | 114·54 |
| 1853 | 1·85 | 0·75 | ... | 1·00 | 2·07 | 26·90 | 29·49 | 31·26 | 20·15 | 4·34 | 0·37 | ... | 118·18 |
| 1854 | 0·10 | 1·57 | 0·40 | 5·10 | P | P | P | P | P | P | P | P | P |
| 1855 | 0·10 | 2·03 | P | P | P | 21·21 | P | 26·54 | 15·80 | P | P | P | P |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | 3·06 | 0·35 | 1·05 | 5·10 | 24·11 | 35·12 | 36·46 | 10·48 | 4·38 | ... | ... | 120·11 |
| 1861 | ... | 0·05 | 1·55 | 2·68 | 10·76 | 34·97 | 34·80 | 19·42 | 26·20 | 19·80 | P | ... | 150·23P |
| 1862 | ... | 1·50 | 2·00 | 6·10 | P | P | 25·30 | P | 21·55 | 4·70 | ... | ... | P |
| 1863 | P | P | P | P | P | P | 24·35 | P | P | P | P | P | P |
| 1864 to 1866 | Not on record. | | | | | | | | | | | | |
| 1867 | P | P | P | P | P | P | 38·86 | 28·24 | 22·19 | 1·82 | 1·02 | ... | P |
| 1868 | 0·45 | 1·35 | 1·17 | 3·26 | 4·67 | 34·75 | 31·39 | 43·35 | 14·35 | 0·42 | ... | 0·18 | 135·34 |
| 1869 | 0·35 | 1·04 | 1·21 | 4·72 | 4·10 | 19·85 | 21·55 | 27·29 | 18·23 | 2·16 | 0·02 | 0·06 | 100·58 |
| 1870 | ... | 1·21 | 1·49 | 7·34 | 7·71 | 46·40 | 26·17 | 18·56 | 10·12 | 27·42 | 0·30 | ... | 146·72 |
| 1871 | ... | 0·78 | 2·72 | 3·18 | 8·18 | 16·83 | 34·94 | 24·38 | 24·57 | 0·70 | 0·72 | ... | 117·00 |
| 1872 | 0·36 | 0·50 | 1·14 | 4·36 | 3·70 | 20·54 | 30·57 | 21·21 | 14·52 | 10·56 | ... | ... | 107·46 |
| 1873 | ... | 0·27 | 1·45 | 6·10 | 5·08 | 12·76 | 22·46 | 18·66 | 10·36 | 0·02 | ... | ... | 77·16 |
| 1874 | ... | 1·00 | 0·82 | 6·95 | 3·30 | 29·37 | 14·71 | 22·10 | 26·08 | 20·59 | ... | 0·08 | 125·00 |
| 1875 | 1·68 | 0·85 | 1·54 | 2·71 | 7·92 | 30·11 | 27·46 | 31·08 | 11·44 | 0·05 | ... | 0·33 | 115·17 |
| 1876 | 0·67 | ... | 0·45 | 1·64 | 7·10 | 29·59 | 39·70 | 17·04 | 12·84 | 6·91 | 0·04 | 0·65 | 116·63 |
| 1877 | 2·29 | 1·33 | 2·45 | 7·40 | 7·89 | 14·79 | 34·81 | 13·65 | 18·93 | 1·50 | ... | 0·60 | 105·64 |
| 1878 | 0·67 | 0·62 | 0·86 | 5·39 | 7·70 | 18·11 | 33·99 | 23·60 | 23·19 | 2·05 | ... | ... | 116·18 |
| 1879 | ... | 0·47 | ... | 1·51 | 13·36 | 27·67 | 53·53 | 40·68 | 19·84 | 3·63 | ... | 0·23 | 160·92 |
| 1880 | 1·36 | 1·68 | 7·56 | 2·60 | 11·80 | 27·63 | 34·70 | 20·70 | 9·80 | 10·15 | 0·40 | 0·45 | 128·83 |
| 1881 | ... | 0·30 | 1·65 | 1·70 | 9·30 | 19·15 | 18·20 | 25·65 | 28·40 | 6·35 | ... | 0·07 | 110·77 |
| 1882 | 0·37 | 1·29 | 3·05 | 5·68 | 7·84 | 33·40 | 25·17 | 32·62 | 18·49 | 15·84 | 0·43 | ... | 144·18 |
| 1883 | 1·86 | 0·50 | ... | 2·14 | 7·78 | 39·52 | 19·26 | 30·85 | 11·06 | 0·68 | ... | 0·10 | 113·75 |
| Mean | 0·74 | 1·11 | 2·35 | 3·72 | 7·10 | 25·25 | 29·86 | 26·19 | 17·66 | 6·50 | 0·21 | 0·16 | 120·85 |
| 1884 | 0·23 | 3·39 | 0·40 | 3·92 | 5·34 | 21·10 | 30·08 | 22·18 | 9·24 | 11·45 | 0·02 | 0·18 | 107·53 |
| 1885 | 0·46 | 0·08 | 3·33 | 9·64 | 9·90 | 19·72 | 39·64 | 28·50 | 28·81 | 1·87 | 0·04 | 1·94 | 143·93 |
| 1886 | 0·20 | 0·46 | 2·83 | 2·80 | 8·98 | 22·18 | 27·69 | 37·47 | 20·26 | 1·99 | 0·55 | ... | 125·41 |
| Mean | 0·70 | 1·13 | 2·33 | 3·90 | 7·21 | 24·78 | 30·13 | 26·54 | 17·84 | 6·35 | 0·21 | 0·22 | 121·34 |

No. 160. KURSEONG.

Latitude N. 26° 53′. Longitude E. 88° 20′. Elevation 4,840 feet.

Administration: BENGAL. Rainfall Province No. IX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | 2·12 | 0·08 | 0·60 | 2·74 | 8·73 | 32·61 | 34·11 | 40·56 | 17·39 | 0·93 | ... | ... | 139·87 |
| 1876 | 0·22 | ... | 0·15 | 1·84 | 6·09 | 42·99 | 30·07 | 13·56 | 16·95 | 4·14 | 0·01 | ... | 116·02 |

KURSEONG—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | 0·88 | 0·35 | 0·72 | 3·74 | 9·25 | 21·53 | 46·12 | 19·73 | 26·41 | 1·44 | ... | 0·22 | 130·39 |
| 1878 | 0·28 | 0·62 | 1·40 | 5·07 | 13·53 | 36·70 | 47·77 | 36·15 | 28·37 | 6·03 | 0·37 | ... | 176·29 |
| 1879 | 0·13 | 0·72 | ... | 0·52 | 25·78 | 34·60 | 45·22 | 42·16 | 25·33 | 13·27 | ... | 0·22 | 187·95 |
| 1880 | 2·48 | 2·94 | 4·56 | 4·94 | 20·50 | 49·23 | 35·78 | 31·98 | 13·07 | ? | ? | ? | ? |
| Mean | 1·02 | 0·79 | 1·24 | 3·14 | 13·98 | 36·28 | 39·85 | 30·69 | 21·25 | 5·16 | 0·08 | 0·09 | 153·57 |

No. 161. MONGPOO.

Latitude N. ? Longtiude E. ? Elevation 4,700 feet.

Administration: BENGAL. Rainfall Province No. IX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1873 | 0·23 | ... | 2·54 | 4·75 | 9·25 | 18·46 | 29·94 | 25·62 | 11·32 | ... | 0·09 | ... | 102·20 |
| 1874 | 0·32 | 1·92 | 1·47 | 3·26 | 5·97 | 29·40 | 16·33 | 23·92 | 29·13 | 20·35 | ... | ... | 132·07 |
| 1875 | 1·58 | 0·30 | 0·34 | 2·49 | 8·61 | 32·57 | 34·84 | 30·21 | 7·00 | ... | ... | 0·23 | 118·17 |
| 1876 | ? | ? | ? | 4·44 | 7·70 | 37·14 | 27·75 | 13·52 | 12·28 | 3·21 | ? | ? | ? |
| 1877 | 1·64 | 0·52 | 3·32 | 6·09 | 11·59 | 16·05 | 35·08 | 10·17 | 23·86 | 1·00 | ... | 0·30 | 109·62 |
| 1878 | 0·28 | 0·59 | 1·29 | 5·90 | 8·36 | 32·89 | 38·76 | 32·03 | 23·53 | 1·29 | 0·15 | ... | 145·07 |
| 1879 | ... | 0·33 | ... | 1·99 | 9·22 | 38·48 | 48·06 | 36·21 | 14·47 | 3·80 | ... | 0·11 | 152·67 |
| 1880 | 2·45 | 1·90 | 6·67 | 2·47 | 12·65 | 42·36 | 45·22 | 23·32 | 7·82 | 10·46 | 0·23 | 0·24 | 155·79 |
| 1881 | 0·04 | 0·22 | 1·20 | 3·03 | 9·89 | 24·98 | 18·03 | 26·77 | 31·21 | 3·16 | 0·48 | ... | 119·01 |
| 1882 | 0·11 | 0·86 | 3·23 | 5·61 | 8·70 | 32·06 | 21·50 | 48·10 | 14·65 | 14·75 | 0·39 | ... | 149·96 |
| 1883 | 1·83 | 0·10 | 0·13 | 3·27 | 12·43 | 41·31 | 21·62 | 28·83 | 8·20 | 0·50 | ... | 0·07 | 118·29 |
| Mean | 0·85 | 0·67 | 2·02 | 3·94 | 9·49 | 31·43 | 30·65 | 27·15 | 16·68 | 5·32 | 0·13 | 0·10 | 128·43 |
| 1884 | 0·14 | 2·58 | 0·92 | 4·26 | 7·54 | 22·59 | 23·38 | 15·88 | 5·14 | 9·52 | ... | 0·03 | 91·98 |
| 1885 | 0·40 | 0·06 | 3·68 | 4·24 | 7·87 | 20·09 | 45·04 | 22·89 | 25·46 | 1·39 | ... | 1·18 | 132·30 |
| 1886 | ... | 0·21 | 4·68 | 2·05 | 8·68 | 32·40 | 23·85 | 37·75 | 20·19 | 2·31 | 0·20 | 0·46 | 132·78 |
| Mean | 0·69 | 0·74 | 2·27 | 3·85 | 9·18 | 30·06 | 30·67 | 26·80 | 16·73 | 5·12 | 0·12 | 0·20 | 126·43 |

No. 162. BAXA,

Latitude N. 26° 46′. Longitude E. 89° 37′. Elevation 2,076 feet.

Administration: BENGAL. Rainfall Province No. IX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1869 | 0·80 | 2·00 | 1·50 | 6·63 | 25·30 | 27·30 | 46·50 | 83·50 | 46·50 | 9·60 | ? | 2·40 | 252·03 ? |
| 1870 | 0·30 | 1·00 | 0·80 | 8·80 | 40·70 | 89·50 | 138 00 | 45·35 | 36·60 | 36·00 | ... | ... | 397·05 |
| 1871 | ... | 0·70 | 2·60 | 8·65 | 16·11 | 25·32 | 60·36 | 32·19 | 25·20 | 7·59 | 2·74 | 0·16 | 181·62 |
| 1872 | 0·98 | 0·97 | 0·50 | 7·75 | 14·88 | 45·01 | 39·06 | 38·21 | 37·53 | 9·62 | 0·28 | 0·04 | 194·83 |
| 1873 | 0·44 | 0·46 | 1·99 | 3·59 | 3·25 | 62·26 | 35·76 | 35·48 | 32·41 | ... | ... | 0·35 | 175·99 |
| 1874 | 0·46 | 1·40 | 2·05 | 8·56 | 18·11 | 54·26 | 48·13 | 39·35 | 45·79 | 13·76 | 0·03 | ... | 231·90 |

BAXA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | 4·01 | 0·25 | 3·32 | 16·00 | 11·04 | 19·64 | 37·74 | 39·19 | 18·75 | 4·08 | 0·26 | 0·30 | 154·58 |
| 1876 | 0·22 | ... | 0·70 | 13·19 | 21·21 | 49·47 | 29·74 | 38·65 | 26·64 | 10·00 | 1·09 | 0·72 | 191·63 |
| 1877 | 1·45 | 0·14 | 2·94 | 6·20 | 24·39 | 45·60 | 49·52 | 11·93 | 39·68 | 3·53 | ... | 0·15 | 185·53 |
| 1878 | 0·53 | 1·04 | 2·23 | 7·49 | 10·43 | 53·82 | 65·46 | 33·61 | 31·27 | 3·58 | 0·50 | ... | 209·96 |
| 1879 | 0·22 | 0·69 | ... | 7·71 | 51·84 | 60·20 | 49·84 | 25·29 | 20·75 | 5·14 | ... | ... | 221·68 |
| 1880 | 2·62 | 3·16 | 5·21 | 10·08 | 20·02 | 42·47 | 42·13 | 59·35 | 18·92 | 18·55 | ... | 2·46 | 224·97 |
| 1881 | 0·16 | 0·39 | 3·80 | 13·82 | 20·00 | 47·43 | 27·89 | 45·10 | 60·04 | 9·69 | 0·06 | ... | 228·38 |
| 1882 | 0·23 | 1·25 | 15·65 | 10·07 | 17·48 | 38·19 | 21·90 | 82·73 | 34·66 | 29·43 | 0·75 | 0·59 | 252·93 |
| 1883 | 1·54 | 0·09 | 1·89 | 9·92 | 28·87 | 47·08 | 35·71 | 47·08 | 31·05 | 4·85 | 0·03 | 1·97 | 210·08 |
| Mean | **0·93** | **0·90** | **3·01** | **9·23** | **21·58** | **47·17** | **48·52** | **43·80** | **33·72** | **11·03** | **0·41** | **0·61** | **220·91** |
| 1884 | 0·23 | 3·41 | 2·02 | 8·73 | 13·80 | 30·08 | 40·47 | 36·07 | 6·20 | 8·07 | ... | 0·40 | 149·48 |
| 1885 | 0·94 | 0·27 | 4·18 | 7·41 | 24·29 | 33·04 | 51·58 | 31·24 | 30·27 | 11·88 | 0·15 | 0·88 | 196·13 |
| 1886 | 0·21 | 0·25 | 0·87 | 5·11 | 16·13 | 44·45 | 57·07 | 66·33 | 41·13 | 2·67 | 2·64 | 0·93 | 237·79 |
| Mean | **0·85** | **0·97** | **2·90** | **8·87** | **20·99** | **45·28** | **48·71** | **43·93** | **32·41** | **10·45** | **0·50** | **0·63** | **216·49** |

No. 163. JALPAIGURI.

Latitude N. 26° 32′. Longitude E. 88° 46′. Elevation 270 feet.

Administration: BENGAL. Rainfall Province No. IX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1869 | 0·30 | 0·95 | 3·60 | 1·75 | 10·80 | 41·09 | 23·62 | 49·32 | 27·55 | 2·95 | 0·10 | ... | 162·03 |
| 1870 | ? | ? | ? | ? | 10·43 | 42·22 | 42·47 | 21·49 | 26·58 | 19·68 | ... | ... | ? |
| 1871 | ... | 0·19 | 4·17 | 3·68 | 4·87 | 16·69 | 28·54 | 20·84 | 11·52 | 1·36 | ... | ... | 91·86 |
| 1872 | 0·96 | ... | 0·65 | 6·83 | 11·03 | 23·76 | 23·80 | 26·98 | 22·98 | 8·98 | 0·03 | ... | 126·00 |
| 1873 | 0·05 | 0·05 | 0·75 | 7·48 | 2·67 | 28·93 | 15·68 | 13·79 | 18·76 | ... | ... | 0·15 | 88·31 |
| 1874 | 1·18 | 0·78 | 0·96 | 3·54 | 11·74 | 24·99 | 21·06 | 17·27 | 56·49 | 9·57 | ... | ... | 147·58 |
| 1875 | 0·71 | ... | 2·09 | 4·87 | 14·07 | 24·49 | 25·27 | 24·79 | 9·65 | 0·59 | ... | 0·06 | 106·59 |
| 1876 | 0·06 | ... | 0·04 | 2·99 | 7·34 | 41·49 | 22·89 | 14·92 | 16·55 | 6·73 | ... | ... | 113·01 |
| 1877 | 0·97 | 0·24 | 0·52 | 4·24 | 12·36 | 20·04 | 21·45 | 5·06 | 28·56 | 0·76 | ... | 0·13 | 94·33 |
| 1878 | 0·13 | 0·21 | 0·90 | 4·95 | 12·37 | 28·16 | 42·40 | 21·63 | 31·38 | 0·82 | ... | ... | 142·95 |
| 1879 | ... | 0·39 | ... | 0·64 | 24·46 | 31·49 | 32·88 | 26·08 | 17·57 | 1·93 | ... | 0·04 | 135·48 |
| 1880 | 0·50 | 1·95 | 3·21 | 7·87 | 14·66 | 41·40 | 18·50 | 33·52 | 6·08 | 8·99 | ... | 0·82 | 137·50 |
| 1881 | ... | 0·01 | 4·65 | 1·06 | 11·17 | 22·68 | 13·33 | 19·92 | 45·64 | 4·47 | 1·35 | ... | 124·28 |
| 1882 | 0·18 | 0·50 | 3·54 | 1·36 | 11·27 | 27·28 | 20·64 | 50·92 | 21·86 | 18·46 | 0·45 | ... | 156·46 |
| 1883 | 1·33 | 0·12 | ... | 3·99 | 8·77 | 33·74 | 23·62 | 38·80 | 30·80 | 0·86 | ... | ... | 142·03 |
| Mean | **0·46** | **0·39** | **1·79** | **3·95** | **11·20** | **29·90** | **25·08** | **25·69** | **24·80** | **5·74** | **0·13** | **0·08** | **129·21** |
| 1884 | 0·08 | 0·10 | 1·38 | 4·46 | 14·03 | 20·39 | 19·29 | 40·79 | 5·00 | 5·35 | ... | ... | 110·87 |
| 1885 | 0·96 | ... | 2·23 | 2·37 | 8·91 | 28·33 | 40·58 | 13·93 | 24·27 | 6·50 | ... | 0·45 | 128·53 |
| 1886 | ... | 0·39 | 0·66 | 1·40 | 10·01 | 18·00 | 36·58 | 27·12 | 35·90 | 1·58 | ... | ... | 131·64 |
| Mean | **0·43** | **0·35** | **1·73** | **3·73** | **11·16** | **28·62** | **26·26** | **25·95** | **24·29** | **5·53** | **0·11** | **0·09** | **128·25** |

No. 164. COOCH BEHAR.

Latitude N. 26° 20′. Longitude E. 89° 29′. Elevation 150 feet.

Administration: BENGAL. Rainfall Province No. IX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | P | P | P | P | P | P | P | P | P | 5·72 | 0·30 | ... | P |
| 1872 | 1·20 | ... | 0·52 | 8·29 | 11·46 | 43·20 | 16·11 | 27·26 | 18·68 | 6·57 | ... | ... | 133·29 |
| 1873 | ... | ... | 1·46 | 7·72 | 3·53 | 51·64 | 22·93 | 18·11 | 10·16 | ... | ... | ... | 115·55 |
| 1874 | 1·40 | 0·63 | 0·93 | 8·03 | 15·74 | 29·93 | 40·76 | 16·70 | 33·06 | 10·04 | ... | ... | 157·22 |
| 1875 | 0·20 | ... | 0·17 | 6·41 | 11·09 | 23·93 | 18·46 | 24·95 | 5·19 | ... | ... | ... | 90·40 |
| 1876 | ... | ... | ... | 4·32 | 18·61 | 29·88 | 11·01 | 21·80 | 13·62 | 9·94 | ... | ... | 109·18 |
| 1877 | 1·27 | 0·41 | 1·67 | 6·49 | 21·82 | 8·69 | 26·61 | 3·52 | 36·17 | 0·73 | ... | 0·10 | 107·48 |
| 1878 | 0·09 | 0·67 | 0·85 | 6·16 | 12·73 | 67·34 | 34·50 | 26·45 | 44·97 | 1·20 | ... | ... | 194·96 |
| 1879 | ... | 0·58 | ... | 1·45 | 26·48 | 40·89 | 31·32 | 20·79 | 16·38 | 5·05 | ... | 0·12 | 143·06 |
| 1880 | 0·31 | 0·98 | 3·11 | 7·36 | 7·88 | 49·43 | 26·41 | 19·48 | 7·10 | 7·14 | ... | 1·11 | 130·31 |
| 1881 | ... | 0·18 | 4·71 | 2·10 | 18·58 | 20·55 | 15·60 | 15·47 | 38·89 | 4·21 | ... | ... | 120·29 |
| 1882 | ... | 0·81 | 1·31 | 3·29 | 5·26 | 34·59 | 10·87 | 32·90 | 28·32 | 16·69 | 0·41 | ... | 134·45 |
| 1883 | 0·18 | 0·02 | ... | 6·99 | 14·59 | 25·89 | 22·20 | 34·90 | 28·72 | 0·20 | ... | ... | 133·69 |
| Mean | 0·39 | 0·36 | 1·23 | 5·72 | 13·98 | 35·50 | 23·07 | 21·86 | 23·44 | 5·19 | 0·05 | 0·10 | 130·89 |
| 1884 | 0·33 | 0·25 | 3·94 | 6·06 | 26·73 | 40·29 | 18·28 | 20·89 | 7·04 | 13·92 | ... | ... | 137·73 |
| 1885 | 0·67 | ... | 4·42 | 4·15 | 12·48 | 44·89 | 30·33 | 18·28 | 18·69 | 3·71 | ... | 0·32 | 137·94 |
| 1886 | ... | 0·07 | 1·33 | 1·42 | 11·50 | 23·98 | 18·76 | 21·14 | 32·19 | 4·64 | 0·40 | 0·15 | 115·58 |
| Mean | 0·38 | 0·31 | 1·63 | 5·35 | 14·57 | 35·67 | 22·94 | 21·51 | 22·61 | 5·98 | 0·07 | 0·21 | 131·13 |

No. 165. RUNGPORE.

Latitude N. 25° 45′. Longitude E. 89° 18′. Elevation 120 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | P | P | P | P | 12·97 | 27·05 | 12·70 | 12·09 | 6·50 | 7·04 | ... | 0·30 | P |
| 1849 | 0·50 | 1·90 | 0·95 | 1·80 | 18·75 | 16·25 | 27·55 | 15·40 | 3·05 | 7·20 | ... | 1·00 | 94·35 |
| 1850 | ... | 1·00 | ... | 3·30 | 9·00 | 20·00 | 19·10 | 7·75 | 10·20 | 3·60 | 0·60 | ... | 74·55 |
| 1851 | 1·10 | 0·10 | 0·50 | 3·70 | 9·70 | 23·90 | 11·80 | 14·40 | 6·30 | 3·20 | ... | ... | 74·70 |
| 1852 | ... | ... | 5·00 | 4·45 | 21·25 | 29·20 | 14·70 | 19·55 | 25·10 | 2·25 | ... | P | 121·50 P |
| 1853 | P | P | ... | ... | P | 19·30 | 10·30 | 12·60 | 13·70 | P | ... | P | P |
| 1854 | ... | 0·20 | ... | P | P | 32·70 | 13·90 | 14·10 | 11·20 | P | 2·60 | ... | P |
| 1855 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | ... | ... | P | 5·20 | 5·30 | 8·10 | 18·50 | 20·30 | 7·50 | ... | ... | P |
| 1861 | ... | ... | ... | 3·60 | 7·50 | 48·70 | 35·90 | P | 11·30 | 1·60 | P | 0·30 | P |
| 1862 | ... | ... | 1·20 | 5·45 | 11·30 | 17·20 | 0·50 | 6·90 | 18·10 | 9·00 | ... | ... | 69·65 |
| 1863 to 1866 | Not on record. | | | | | | | | | | | | |

RUNGPORE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ? | ? | ? | ? | ? | ? | ? | 8·00 | 6·80 | 4·30 | 3·40 | ... | ? |
| 1868 | ... | 0·40 | 1·30 | 1·30 | 6·30 | 15·50 | 15·70 | 14·90 | 28·60 | 0·50 | ... | ... | 84·50 |
| 1869 | ... | ... | 0·80 | 2·80 | 8·90 | 36·70 | 17·40 | 28·50 | 3·30 | 0·80 | ... | ... | 99·20 |
| 1870 | ... | ... | ... | ... | 12·53 | 35·68 | 33·20 | 9·50 | 11·00 | 11·35 | ... | ... | 113·26 |
| 1871 | ... | ... | 2·30 | 1·40 | 7·90 | 21·40 | 27·80 | 13·40 | 19·50 | 0·45 | ... | ... | 94·15 |
| 1872 | ... | 0·10 | 0·61 | 1·73 | 10·89 | 16·49 | 16·56 | 13·54 | 17·64 | 8·69 | ... | ... | 86·25 |
| 1873 | 0·05 | 0·24 | 0·90 | 8·24 | 1·07 | 13·09 | 3·93 | 14·11 | 2·63 | ... | ... | 0·38 | 44·64 |
| 1874 | 3·80 | 1·55 | 1·40 | 4·30 | 8·73 | 18·80 | 19·76 | 3·64 | 18·35 | 14·24 | ... | ... | 94·57 |
| 1875 | 0·38 | ... | 0·62 | 1·39 | 13·16 | 15·29 | 8·71 | 17·22 | 3·45 | 0·23 | ... | ... | 60·45 |
| 1876 | ... | ... | 0·02 | 1·41 | 9·59 | 18·37 | 7·68 | 11·18 | 6·00 | 11·44 | ... | ... | 65·69 |
| 1877 | 1·60 | 0·21 | 1·21 | 3·44 | 18·82 | 7·64 | 24·29 | 6·88 | 22·66 | 4·19 | ... | 0·09 | 91·03 |
| 1878 | ... | 0·54 | 0·40 | 5·02 | 9·42 | 22·45 | 46·23 | 15·13 | 19·61 | 1·32 | 1·53 | ... | 121·65 |
| 1879 | ... | 0·71 | ... | 0·38 | 9·42 | 26·92 | 25·74 | 18·25 | 21·41 | 6·15 | ... | ... | 108·98 |
| 1880 | 1·46 | 1·66 | 1·07 | 2·04 | 12·09 | 25·20 | 11·16 | 11·32 | 8·74 | 4·32 | ... | 0·64 | 79·70 |
| 1881 | ... | 0·40 | 3·46 | 1·31 | 7·06 | 15·78 | 8·06 | 7·70 | 18·43 | 6·23 | 0·03 | ... | 68·46 |
| 1882 | ... | 1·65 | 3·20 | 3·26 | 5·41 | 18·50 | 9·74 | 12·83 | 12·95 | 14·30 | 0·10 | ... | 81·94 |
| 1883 | 0·50 | 0·09 | 0·04 | 7·43 | 11·14 | 10·28 | 6·05 | 13·66 | 8·41 | ... | ... | 0·32 | 57·92 |
| Mean | 0·39 | 0·45 | 1·00 | 2·95 | 10·34 | 21·45 | 16·79 | 13·12 | 13·16 | 5·20 | 0·32 | 0·12 | 85·29 |
| 1884 | ... | 0·06 | 3·57 | 2·80 | 12·21 | 15·93 | 7·72 | 9·75 | 8·41 | 4·67 | ... | ... | 65·12 |
| 1885 | 0·60 | 0·04 | 0·50 | 2·57 | 8·42 | 27·96 | 16·32 | 7·75 | 17·03 | 2·97 | ... | 0·39 | 84·55 |
| 1886 | ... | 0·06 | 0·08 | 3·03 | 13·17 | 10·72 | 12·82 | 13·86 | 18·94 | 1·46 | 0·06 | 0·02 | 74·22 |
| Mean | 0·37 | 0·40 | 1·04 | 2·93 | 10·44 | 21·11 | 16·32 | 12·84 | 13·32 | 4·96 | 0·29 | 0·12 | 84·14 |

No. 166. DINAGEPORE.

Latitude N. 25° 37′. Longitude E. 88° 40′. Elevation 120 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1854 | ... | 0·30 | ... | ? | ? | 26·21 | 7·20 | 20·60 | 9·28 | ? | 2·85 | ... | ? |
| 1855 to 1858 | Not on record. | | | | | | | | | | | | |
| 1859 | ... | ... | ? | 1·30 | 2·00 | 23·50 | 21·70 | 23·40 | 12·00 | 7·60 | ... | ... | 91 50 ? |
| 1860 | ... | ... | ... | ? | 6·20 | 18·70 | 20·00 | 15·70 | 16·60 | 10·00 | ... | ... | ? |
| 1861 | ... | ... | ... | 2·80 | 8·10 | 15·90 | 28·10 | 5·40 | 10·90 | 15·00 | ... | 0·80 | 87·00 |
| 1862 | ... | ... | ... | 4·50 | 7·70 | 5·10 | 1·30 | 7·80 | 37·50 | 5·20 | ... | ... | 69·10 |
| 1863 | ... | ... | ... | 5·80 | 26·20 | 20·00 | 10·20 | 20·50 | 13·90 | ... | ... | ... | 96·60 |
| 1864 | 0·20 | 2·10 | ... | ... | 4·10 | 9·40 | 16·50 | 16·60 | 23·00 | 1·80 | ... | ... | 73·70 |
| 1865 | ... | 2·00 | 1·70 | 12·00 | 7·60 | 22·40 | 24·90 | 10·40 | 6·90 | ... | ... | 0·20 | 88·10 |
| 1866 | 0·30 | 2·60 | ... | 1·60 | 6·70 | 12·60 | 18·00 | 15·00 | 10·00 | 3·80 | 0·20 | ... | 70·80 |
| 1867 | 0·70 | 0·50 | ... | ... | 9·20 | 11·60 | 23·70 | 10·60 | 11·30 | 0·90 | 1·90 | ... | 70·40 |
| 1868 | ... | 0·60 | 2·90 | 0·75 | 7·10 | 18·93 | 11·20 | 12·10 | 13·30 | 0·10 | ... | ... | 66·98 |
| 1869 | 0·20 | 0·15 | 0·50 | 1·60 | 7·90 | 33·00 | 21·20 | 21·80 | 21·30 | 4·40 | ... | ... | 112·05 |

DINAGEPORE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ... | 1·20 | 1·50 | 2·54 | 1·54 | 37·47 | 20·30 | 11·82 | 7·85 | 12·71 | ... | ... | 96·93 |
| 1871 | ... | 0·92 | 3·08 | 1·95 | 6·87 | 15·98 | 14·27 | 14·84 | 12·28 | 0·22 | ... | 0·05 | 70·46 |
| 1872 | 0·95 | 0·87 | 0·03 | ... | 4·00 | 14·02 | 17·66 | 16·73 | 10·92 | 10·61 | ... | ... | 75·79 |
| 1873 | 0·50 | 0·28 | 0·61 | 0·66 | 0·41 | 18·27 | 8·24 | 12·62 | 1·62 | ... | ... | 0·32 | 43·53 |
| 1874 | 0·13 | 1·82 | 0·91 | 3·06 | 3·85 | 14·23 | 17·91 | 6·06 | 17·73 | 13·59 | ... | ... | 79·29 |
| 1875 | 0·67 | ... | 0·05 | 3·19 | 9·29 | 12·20 | 3·90 | 8·84 | 5·46 | ... | ... | ... | 43·60 |
| 1876 | ... | ... | ... | 1·24 | 6·53 | 16·10 | 13·14 | 7·16 | 10·06 | 12·31 | 0·01 | ... | 66·55 |
| 1877 | 1·27 | 0·31 | 0·19 | 1·31 | 13·94 | 6·86 | 16·06 | 7·16 | 17·51 | 2·10 | ... | 0·16 | 66·87 |
| 1878 | 0·59 | 0·68 | 1·68 | 1·27 | 7·15 | 16·00 | 24·27 | 17·19 | 7·88 | 2·02 | 1·03 | 0·05 | 79·81 |
| 1879 | 0·05 | 0·42 | ... | 2·70 | 3·84 | 15·66 | 18·47 | 18·25 | 23·19 | 4·31 | ... | ... | 86·89 |
| 1880 | 0·83 | 1·94 | 1·29 | 1·29 | 4·61 | 31·95 | 18·98 | 9·69 | 3·07 | 2·54 | ... | 0·47 | 76·66 |
| 1881 | ... | ... | 2·51 | 0·51 | 9·23 | 13·65 | 6·01 | 9·29 | 15·27 | 3·79 | 0·06 | ... | 60·32 |
| 1882 | ... | 0·85 | 3·21 | 1·79 | 3·57 | 14·49 | 4·67 | 14·16 | 7·49 | 15·82 | 0·13 | ... | 66·18 |
| 1883 | 0·84 | 0·03 | 0·04 | 2·35 | 9·75 | 12·91 | 7·43 | 14·15 | 7·21 | 0·03 | ... | 0·57 | 55·31 |
| Mean | **0·28** | **0·68** | **0·81** | **2·26** | **7·10** | **17·58** | **15·20** | **13·38** | **12·83** | **5·15** | **0·24** | **0·10** | **75·61** |
| 1884 | ... | 0·12 | ... | 2·56 | 5·51 | 11·96 | 7·07 | 5·24 | 1·29 | 4·81 | ... | 0·05 | 38·61 |
| 1885 | 0·20 | 0·03 | 0·26 | 1·49 | 3·75 | 13·54 | 22·65 | 11·32 | 19·38 | 0·37 | ... | 0·31 | 73·30 |
| 1886 | ... | 0·08 | 0·34 | 0·02 | 15·87 | 7·24 | 12·50 | 12·82 | 21·12 | 2·49 | 0·35 | ... | 72·83 |
| Mean | **0·26** | **0·61** | **0·74** | **2·17** | **7·23** | **16·89** | **15·09** | **13·01** | **12·94** | **4·88** | **0·23** | **0·10** | **74·15** |

No. 167. MALDAH.

Latitude N. 25° 3′. Longitude E. 88° 11′. Elevation 100 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | ? | ? | ? | ? | 8·30 | 2·20 | 3·45 | 9·90 | 7·60 | 6·60 | ... | ... | ? |
| 1849 | ... | 0·29 | ... | 1·50 | 2·40 | 5·35 | 4·40 | 10·45 | 5·65 | 3·25 | ... | 1·40 | 34·69 |
| 1850 | ... | 0·70 | ... | 2·00 | 2·15 | ? | 11·50 | ? | ? | ? | ... | 1·20 | ? |
| 1851 | 4·40 | 0·90 | 2·60 | ... | 1·20 | 12·70 | 6·40 | 7·30 | 9·30 | 6·00 | ... | ... | 50·80 |
| 1852 | ... | ... | 5·00 | 1·85 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1853 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | 0·77 | ... | ? | 3·20 | ... | 12·92 | 15·60 | 18·20 | 6·16 | ... | ... | ? |
| 1861 | ... | ... | 0·50 | 0·65 | 5·45 | 10·65 | 18·57 | 3·69 | 11·89 | 19·95 | ? | 1·80 | 73·15? |
| 1862 | 0·10 | ... | 1·28 | 0·65 | 5·60 | 10·82 | 5·12 | 9·52 | 11·50 | 6·53 | ... | ... | 51·12 |
| 1863 | 0·25 | ... | ... | 1·32 | 3·78 | 5·18 | 6·60 | 12·90 | 10·14 | 0·65 | ... | ... | 40·82 |
| 1864 | 0·60 | 0·80 | ... | ... | 2·72 | 9·32 | 10·80 | 11·40 | 1 50 | ... | ? | ... | 37·14? |
| 1865 | ... | 3·42 | 1·71 | 1·31 | 7·50 | 11·34 | 18·90 | 6·40 | 3·78 | ... | ... | 3·30 | 57·66 |
| 1866 | 1·10 | 7·00 | 1·50 | 14·10 | 1·00 | ? | ? | 10·20 | 10·43 | 2·00 | 1·50 | ... | ? |
| 1867 | 6·00 | ... | 0·82 | 0·15 | 1·51 | 4·22 | 11·25 | 10·90 | 18·25 | 1·35 | 1·85 | ... | 56·30 |
| 1868 | 0·05 | ... | 0·05 | 2·00 | 3·50 | 7·20 | 6·65 | 15·21 | 8·55 | 0·10 | ... | ... | 43·31 |
| 1869 | 0·35 | 0·35 | 0·72 | ... | 1·65 | 23·67 | 6·98 | 4·75 | 14·32 | 2·20 | ... | ... | 54·99 |
| 1870 | ... | ... | 0·20 | 0·75 | 0·82 | 10·81 | 13·31 | 11·68 | 8·97 | 7·01 | ... | ... | 53·55 |

MALDAH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | ... | 0·02 | 1·61 | 1·72 | 3·86 | 9·63 | 14·99 | 6·12 | 20·22 | 4·52 | ... | ... | 62·69 |
| 1872 | 0·09 | 1·34 | 0·02 | 0·49 | 2·81 | 11·84 | 14·43 | 5·69 | 7·72 | 8·08 | ... | ... | 52·51 |
| 1873 | 0·45 | ... | 0·29 | 1·19 | 0·06 | 4·36 | 7·08 | 7·76 | 4·91 | 0·92 | ... | 0·24 | 27·26 |
| 1874 | 0·55 | 1·25 | 1·55 | 2·61 | 3·09 | 8·90 | 11·90 | 4·70 | 23·14 | 11·07 | ... | ... | 68·76 |
| 1875 | 1·18 | 0·10 | 0·12 | 0·53 | 2·05 | 18·66 | 7·41 | 16·12 | 8·21 | 0·02 | ... | ... | 54·40 |
| 1876 | ... | ... | 0·06 | 2·62 | 3·02 | 14·65 | 11·60 | 10·82 | 10·00 | 3·65 | ... | ... | 56·42 |
| 1877 | 1·98 | 0·46 | 0·23 | 0·74 | 9·09 | 4·81 | 15·81 | 11·34 | 25·05 | 3·89 | ... | 0·48 | 73·88 |
| 1878 | 1·42 | 0·56 | 0·80 | 1·19 | 4·56 | 9·31 | 13·62 | 12·59 | 7·98 | 1·77 | 2·63 | ... | 56·43 |
| 1879 | *0·32 | 1·06 | ... | 0·12 | 2·69 | 18·66 | 16·25 | 19·34 | 11·84 | 1·30 | ... | ... | 71·58 |
| 1880 | 0·18 | 3·12 | 2·39 | 0·25 | 3·23 | 13·48 | 13·41 | 10·94 | 7·39 | 5·14 | ... | 0·27 | 59·80 |
| 1881 | ... | ... | 3·05 | 1·16 | 9·11 | 12·89 | 8·33 | 10·97 | 10·15 | 9·64 | 0·05 | ... | 65·35 |
| 1882 | ... | 0·83 | 0·66 | 0·07 | 2·02 | 10·06 | 3·86 | 5·34 | 4·39 | 5·23 | 0·23 | ... | 32·69 |
| 1883 | 0·48 | 0·11 | 0·26 | 0·85 | 3·19 | 9·68 | 10·65 | 6·20 | 3·28 | 0·10 | ... | 1·93 | 36·73 |
| Mean | 0·70 | 0·82 | 0·91 | 1·47 | 3·56 | 10·02 | 10·60 | 9·92 | 10·53 | 4·34 | 0·24 | 0·38 | 53·49 |
| 1884 | ... | ... | 0·05 | 1·33 | 7·72 | 10·54 | 5·59 | 5·24 | 1·92 | 7·08 | ... | ... | 39·47 |
| 1885 | 0·04 | ... | 0·20 | ... | 1·25 | 6·09 | 16·10 | 17·41 | 18·53 | 0·40 | ... | 0·26 | 60·28 |
| 1886 | ... | 0·85 | 1·64 | ... | 4·16 | 14·80 | 12·95 | 12·80 | 20·83 | 7·50 | ... | ... | 74·73 |
| Mean | 0·63 | 0·77 | 0·88 | 1·37 | 3·64 | 10·06 | 10·69 | 10·08 | 10·85 | 4·40 | 0·22 | 0·35 | 53·94 |

No. 168. BOGRA.

Latitude N. 24° 51′. Longitude E. 89° 26′. Elevation 77 feet.

Administration : BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1854 | ... | 1·70 | 0·10 | 5·00 | 4·20 | 19·80 | 10·00 | 21·00 | 6·50 | 6·30 | 1·00 | ... | 75·60 |
| 1855 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | ... | 3·10 | 10·80 | 5·50 | 14·60 | 26·30 | 16·90 | 24·80 | 11·40 | ? | ? | 113·40 ? |
| 1861 | ? | ... | ? | 5·70 | 17·20 | 41·30 | 18·20 | 5·00 | 11·70 | 9·00 | 1·60 | 0·90 | ? |
| 1862 | Not on record. | | | | | | | | | | | | |
| 1863 | ? | ? | ... | 10·60 | 5·90 | 17·60 | 18·30 | 16·40 | 13·00 | 2·50 | ... | ... | 84·30 ? |
| 1864 | ... | 2·40 | 0·70 | 1·00 | 11·70 | 19·80 | 18·80 | 15·00 | 17·30 | 8·00 | 1·20 | ... | 95·90 |
| 1865 | ... | 1·50 | 1·60 | 7·00 | 11·70 | 18·90 | 21·80 | 7·30 | 8·20 | 1·60 | ... | ... | 79·60 |
| 1866 | 2·50 | 2·30 | 1·40 | 3·50 | 8·80 | 6·60 | 14·70 | 7·00 | 6·40 | 9·20 | ... | ... | 62·40 |
| 1867 | ? | ? | 0·20 | 3·30 | 8·70 | 9·50 | 36·40 | 18·30 | 10.30 | 5·00 | 12·20 | ... | 103·90 ? |
| 1868 | 0·10 | 1·70 | 1·30 | 2·90 | 9·40 | 15·50 | 11·90 | 8·50 | 19·50 | 2·20 | ... | ... | 73·00 |
| 1869 | ... | ... | 0·50 | 3·10 | 10·50 | 11·60 | 23·20 | 14·80 | 22·20 | 4·20 | ... | ... | 90·10 |
| 1870 | ... | 0·20 | 0·32 | 2·59 | 5·75 | 8·90 | 18·47 | 17·41 | 22·23 | 7·18 | ... | ... | 83·05 |
| 1871 | ... | ... | 0·90 | 5·07 | 7·56 | 29·55 | 14·70 | 13·41 | 17·17 | 4·63 | ... | ... | 92·99 |
| 1872 | ... | 1·12 | ... | 0·72 | 12·19 | 11·43 | 16·13 | 5·95 | 13·47 | 5·87 | ... | ... | 66·88 |
| 1873 | 0·22 | 0·12 | 0·47 | 3·12 | 2·01 | 6·74 | 7·95 | 12·83 | 3·29 | ... | .... | 0·38 | 37·13 |
| 1874 | 2·49 | 5·66 | 0·10 | 6·90 | 8·01 | 16·35 | 10·83 | 9·70 | 16·50 | 9·28 | ... | ... | 85·82 |
| 1875 | 1·80 | 0·11 | 0·69 | 2·59 | 7·16 | 16·61 | 9·30 | 11·14 | 6·56 | 1·85 | ... | ... | 57·81 |

BOGRA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | ... | 2·17 | 13·29 | 13·15 | 17·63 | 11·53 | 7·77 | 1·80 | 0·98 | ... | 68·32 |
| 1877 | 1·23 | 0·88 | 0·26 | 2·17 | 7·00 | 9·97 | 25·70 | 8·66 | 15·42 | 3·10 | 0·65 | 0·86 | 75·90 |
| 1878 | 0·16 | 1·58 | 0·74 | 1·49 | 8·61 | 10·00 | 20·20 | 23·34 | 10·75 | 2·33 | 2·83 | ... | 82·03 |
| 1879 | ... | 0·71 | ... | ... | 6·24 | 19·65 | 19·36 | 10·78 | 10·34 | 4·71 | ... | ... | 71·79 |
| 1880 | 0·74 | 3·95 | 1·01 | 2·21 | 9·78 | 19·15 | 12·66 | 16·17 | 4·67 | 7·18 | ... | 0·22 | 77·74 |
| 1881 | ... | ... | 2·88 | 1·36 | 13·50 | 7·73 | 6·77 | 18·39 | 15·37 | 4·68 | 0·06 | ... | 70·74 |
| 1882 | ... | 0·69 | 0·89 | 1·45 | 7·62 | 15·25 | 6·53 | 13·18 | 3·75 | 8·78 | 0·21 | ... | 58·35 |
| 1883 | 0·58 | 0·16 | 0·17 | 3·02 | 6·88 | 7·31 | 16·19 | 8·91 | 2·82 | 0·31 | ... | 0·79 | 47·14 |
| **Mean.** | **0·47** | **1·13** | **0·75** | **3·66** | **8·72** | **15·29** | **16·75** | **12·98** | **12·08** | **5·05** | **0·90** | **0·14** | **77·92** |
| 1884 | ... | 0·13 | 1·53 | 3·20 | 9·75 | 16·14 | 8·77 | 3·15 | 2·59 | 2·16 | 0·19 | ... | 47·61 |
| 1885 | ... | 0·30 | 0·30 | 0·18 | 5·86 | 13·27 | 17·10 | 6·30 | 13·67 | 2·12 | ... | 0·06 | 59·16 |
| 1886 | ... | 0·11 | 1·10 | 0·37 | 8·71 | 10·89 | 10·91 | 17·40 | 17·23 | 2·64 | ... | ... | 69·36 |
| **Mean.** | **0·41** | **1·01** | **0·78** | **3·39** | **8·65** | **15·08** | **16·25** | **12·54** | **11·98** | **4·74** | **0·80** | **0·12** | **75·75** |

No. 169. RAMPORE BAULEAH.

Latitude N. 24° 22′. Longitude E. 88° 38′. Elevation 35 feet.

Administration : BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1851 | ... | 1·30 | 0·20 | 1·10 | 1·60 | 6·88 | 11·56 | 4·95 | 3·35 | 3·30 | 0·17 | P | 34·41 P |
| 1852 | 0·30 | ... | 4·86 | 2·65 | 7·36 | 14·82 | 10·33 | 6·49 | 8·82 | 1·95 | ... | P | 57·58 P |
| 1853 | P | ... | ... | ... | P | P | 4·29 P | 8·95 | P | P | P | P | P |
| 1854 | ... | 1·30 | ... | P | P | 15·95 | 10·50 | 18·60 | 7·15 | P | 0·50 | ... | P |
| 1855 to 1858 | Not on record. | | | | | | | | | | | | |
| 1859 | ... | 0·30 | 3·60 | 1·70 | 3·70 | 9·95 | 7·50 | 11·50 | 9·10 | 4·80 | ... | ... | 52·15 |
| 1860 | ... | 1·30 | 1·70 | 3·10 | 3·20 | 6·00 | 14·50 | 7·70 | 11·50 | ... | ... | ... | 49·00 |
| 1861 | ... | ... | 3·00 | 2·00 | 10·50 | 13·40 | 16·10 | 5·50 | 19·70 | 18·10 | 1·40 | 0·60 | 90·30 |
| 1862 | 0·50 | ... | 6·50 | 1·90 | 6·20 | 23·90 | 8·90 | 6·60 | 6·90 | 15·70 | ... | ... | 77·10 |
| 1863 | ... | ... | ... | ... | 7·40 | 13·90 | 14·40 | 9·30 | 14·60 | P | ... | P | P |
| 1864 | ... | 2·20 | ... | 1·00 | 4·50 | 9·80 | 12·70 | 13·00 | 9·00 | 6·80 | 0·50 | ... | 59·50 |
| 1865 | ... | 2·00 | 1·90 | 5·10 | 10·30 | 5·70 | 17·80 | 9·60 | 7·10 | 0·50 | ... | ... | 60·00 |
| 1866 | 0·50 | 2·40 | 0·10 | 5·60 | 2·70 | 9·90 | 12·20 | 8·40 | 8·30 | 7·00 | ... | ... | 57·10 |
| 1867 | 0·10 | 0·20 | 0·40 | 1·90 | 3·50 | 6·90 | 10·70 | 7·60 | 14·10 | 2·70 | 3·40 | ... | 51·50 |
| 1868 | 0·02 | 3·40 | 3·00 | 3·10 | 9·25 | 14·45 | 13·20 | 10·75 | 11·20 | 3·15 | ... | ... | 71·52 |
| 1869 | 0·50 | 1·00 | 0·95 | 1·00 | 5·80 | 18·05 | 8·20 | 10·10 | 16·80 | 3·10 | ... | ... | 65·50 |
| 1870 | ... | ... | 0·10 | 0·65 | 2·26 | 5·26 | 9·67 | 14·90 | 12·68 | 1·58 | ... | ... | 47·10 |
| 1871 | ... | 0 02 | 0·89 | 0·24 | 5·51 | 16·07 | 21·99 | 15·74 | 10·41 | 0·64 | ... | ... | 71·51 |
| 1872 | ... | 3·37 | 0·06 | 1·00 | 2·71 | 6·74 | 10·37 | 4·94 | 15·48 | 10·41 | ... | ... | 54·08 |
| 1873 | 0·28 | 0·15 | 1·49 | 1·09 | 0·31 | 6·90 | 6·73 | 11·27 | 3·12 | 0·32 | 0·27 | 0·01 | 32·14 |
| 1874 | 0·45 | 2·54 | 0·24 | 2·73 | 6·82 | 6·24 | 5·93 | 5·72 | 16·39 | 8·98 | ... | ... | 56·04 |

RAMPORE BAULEAH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | 2·27 | 0·42 | 0·51 | 0·88 | 4·84 | 12·27 | 4·87 | 13·17 | 8·91 | 0·86 | ... | ... | 49·00 |
| 1876 | ... | ... | 0·29 | 1·04 | 11·52 | 10·50 | 19·01 | 19·72 | 10·56 | 4·02 | ... | ... | 76·66 |
| 1877 | 2·44 | 1·95 | 0·24 | 5·12 | 4·53 | 8·17 | 13·68 | 26·71 | 12·03 | 2·71 | ... | 0·44 | 78·02 |
| 1878 | 0·02 | 0·46 | 0·01 | 2·12 | 7·63 | 8·84 | 17·92 | 16·53 | 15·19 | 2·57 | 1·73 | ... | 73·02 |
| 1879 | ... | 1·43 | ... | 0·92 | 1·52 | 19·51 | 22·27 | 10·95 | 16·90 | 13·20 | ... | 0·18 | 86·88 |
| 1880 | 0·34 | 4·22 | 0·90 | 1·66 | 6·42 | 14·46 | 11·62 | 13·15 | 10·03 | 5·92 | ... | ... | 68·72 |
| 1881 | ... | 0·02 | 2·11 | 1·06 | 10·28 | 7·13 | 8·89 | 11·86 | 10·90 | 7·28 | ... | ... | 59·53 |
| 1882 | ... | 0·52 | 0·06 | 0·16 | 5·88 | 6·99 | 6·21 | 7·02 | 10·74 | 7·23 | 0·58 | ... | 45·39 |
| 1883 | 0·36 | 0·03 | 1·82 | 0·29 | 4·60 | 6·60 | 5·66 | 7·48 | 3·72 | 1·41 | ... | 1·09 | 33·06 |
| Mean | 0·30 | 1·02 | 1·20 | 1·75 | 5·59 | 10·90 | 11·64 | 10·97 | 10·88 | 5·16 | 0·31 | 0·09 | 59·81 |
| 1884 | ... | 0·18 | 0·85 | 3·17 | 6·11 | 9·41 | 7·06 | 5·62 | 6·63 | 3·61 | ... | 0·03 | 42·67 |
| 1885 | 0·02 | 0·70 | 0·20 | 1·22 | 2·39 | 8·07 | 14·48 | 11·46 | 12·18 | 1·05 | ... | 0·18 | 51·95 |
| 1886 | ... | ... | 1·93 | 0·94 | 6·63 | 11·81 | 15·10 | 12·21 | 15·02 | 1·97 | ... | ... | 65·61 |
| Mean | 0·27 | 0·95 | 1·18 | 1·76 | 5·53 | 10·79 | 11·70 | 10·86 | 10·92 | 4·86 | 0·28 | 0·09 | 59·19 |

No. 170. PUBNA.

Latitude N. 24° 1′. Longitude E. 89° 17′. Elevation 25 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1851 | 0·55 | 1·60 | ... | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1852 | 0·30 | ... | 5·95 | 2·20 | 7·30 | 8·30 | 10·40 | 7·25 | 10·70 | 5·85 | ... | 0·10 | 58·35 |
| 1853 | 0·35 | 0·35 | ... | ... | 1·12 | 11·27 | 10·05 | 11·35 | 9·75 | ? | ? | ... | ? |
| 1854 | ... | ? | ? | ? | 5·85 | 15·15 | 7·65 | 19·85 | 9·60 | 5·80 | 0·90 | ... | ? |
| 1855 to 1865 | Not on record. | | | | | | | | | | | | |
| 1866 | 1·72 | 1·20 | ... | 3·88 | 6·43 | 11·20 | 11·70 | 7·54 | ? | 3·48 | ... | 0·12 | ? |
| 1867 | 0·44 | 1·96 | 5·02 | 9·88 | 7·65 | 14·38 | 18·02 | 12·74 | 15·30 | 6·77 | 3·95 | ... | 96·11 |
| 1868 | 0·05 | 2·82 | 0·43 | 4·99 | 11·91 | 11·34 | 10·35 | 17·18 | 17·20 | 0·88 | ... | ... | 77·15 |
| 1869 | 0·27 | 0·61 | 1·92 | 7·44 | 7·21 | 25·88 | 12·34 | 12·63 | 12·08 | 5·72 | ... | ... | 86·10 |
| 1870 | ... | ... | 0·49 | 4·39 | 4·07 | 11·95 | 11·63 | 12·91 | 8·97 | 7·17 | 0·35 | ... | 61·93 |
| 1871 | ... | 0·05 | 2·44 | 4·18 | 11·27 | 12·54 | 17·65 | 11·98 | 14·69 | 7·72 | ... | ... | 82·52 |
| 1872 | ... | 2·08 | 0·14 | 2·53 | 8·04 | 10·85 | 6·42 | 8·94 | 12·39 | 7·99 | ... | ... | 59·38 |
| 1873 | 0·06 | 0·11 | 0·80 | 7·23 | 3·14 | 5·98 | 15·51 | 7·19 | 4·81 | 0·45 | ... | 0·08 | 45·26 |
| 1874 | 0·55 | 1·89 | 1·66 | 5·22 | 10·57 | 8·58 | 3·15 | 8·11 | 10·84 | 3·98 | 0·13 | ... | 54·68 |
| 1875 | 1·38 | 0·40 | 1·85 | 2·08 | 4·85 | 10·64 | 5·18 | 16·83 | 6·14 | 0·73 | ... | ... | 50·08 |
| 1876 | ... | 0·01 | 2·02 | 3·99 | 10·81 | 13·90 | 12·13 | 10·19 | 10·31 | 6·63 | 0·48 | ... | 70·47 |
| 1877 | 2·23 | 1·81 | 3·04 | 3·74 | 6·09 | 10·87 | 17·88 | 33·18 | 16·69 | 2·77 | ... | 0·66 | 98·96 |
| 1878 | 0·07 | 1·18 | 0·66 | 3·44 | 6·75 | 13·28 | 14·06 | 18·10 | 15·35 | 1·52 | 1·65 | 0·05 | 76·11 |
| 1879 | ... | 1·37 | ... | 1·34 | 1·93 | 11·42 | 8·06 | 10·78 | 13·26 | 6·36 | ... | 0·17 | 54·69 |
| 1880 | 0·39 | 7·80 | 1·76 | 1·60 | 5·31 | 20·53 | 10·53 | 16·19 | 9·97 | 7·11 | ... | ... | 81·19 |

PUBNA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1881 | ... | 0·07 | 4·41 | 1·20 | 13·69 | 7·92 | 10·53 | 16·75 | 11·54 | 2·29 | ... | ... | 68·40 |
| 1882 | ... | 1·41 | 0·39 | 1·99 | 5·99 | 11·11 | 3·71 | 10·09 | 5·44 | 8·76 | ... | ... | 48·89 |
| 1883 | 0·50 | ... | 0·34 | 2·43 | 11·16 | 9·85 | 8·43 | 4·50 | 3·08 | 1·51 | 0·02 | 1·24 | 43·06 |
| Mean | 0·40 | 1·27 | 1·59 | 3·68 | 7·20 | 12·24 | 10·73 | 13·06 | 10·91 | 4·67 | 0·37 | 0·12 | 66·24 |
| 1884 | ... | 0·23 | 0·92 | 4·92 | 5·82 | 10·78 | 7·65 | 6·73 | 8·41 | 5·30 | ... | 0·09 | 50·85 |
| 1885 | ... | 0·74 | 0·32 | 0·77 | 4·74 | 14·10 | 9·73 | 13·26 | 20·92 | 6·38 | 0·05 | 0·24 | 71·25 |
| 1886 | ... | ... | 2·33 | 0·76 | 8·17 | 6·52 | 10·01 | 17·58 | 15·51 | 5·49 | 0·10 | ... | 66·47 |
| Mean | 0·35 | 1·15 | 1·54 | 3·48 | 7·08 | 12·01 | 10·53 | 12·99 | 11·43 | 4·81 | 0·33 | 0·11 | 65·81 |

No. 171. PALAMOW.

Latitude N. 23° 54′. Longitude E. 84° 17′. Elevation 1,200 feet.

Administration: BENGAL. Rainfall Province No. VII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ? | ? | ? | ? | ? | ? | 14·38 | 20·06 | 7·90 | 3·46 | 0·10 | ... | ? |
| 1871 | ... | 0·24 | 0·37 | 0·14 | 0·68 | 13·51 | 15·86 | 10·00 | 12·16 | ... | ... | 0·51 | 53·47 |
| 1872 | 0·55 | 0·41 | 1·13 | 0·90 | 0·03 | 0·92 | 8·52 | 6·88 | 9·28 | 0·43 | ... | ... | 29·05 |
| 1873 | ... | ... | 0·60 | ... | 1·54 | 2·51 | 20·71 | 9·30 | 5·05 | ... | ... | 0·96 | 40·67 |
| 1874 | 1·65 | 1·79 | 0·53 | ... | 0·01 | 18·79 | 14·88 | 14·80 | 10·20 | 10·05 | ... | ... | 72·70 |
| 1875 | 1·18 | 0·42 | ... | 0·02 | 0·96 | 11·06 | 15·65 | 7·82 | 5·95 | 0·11 | ... | ... | 43·17 |
| 1876 | ... | ... | 0·03 | ... | 1·23 | 2·00 | 17·01 | 8·69 | 9·57 | 1·23 | ... | ... | 39·76 |
| 1877 | 1·80 | 2·25 | 1·45 | 2·32 | 5·25 | 2·10 | 6·92 | 11·40 | 10·10 | 5·54 | ... | 1·58 | 50·71 |
| 1878 | 0·08 | 0·07 | 0·82 | 1·07 | 2·56 | 1·37 | 10·51 | 12·09 | 5·99 | 0·07 | 1·66 | ... | 36·29 |
| 1879 | ... | 0·31 | 0·03 | ... | 0·12 | 6·05 | 17·28 | 12·80 | 6·50 | 0·94 | ... | ... | 44·03 |
| 1880 | 0·01 | 1·07 | ... | 0·01 | 0·25 | 5·58 | 6·03 | 7·46 | 6·42 | 3·40 | 0·45 | 0·17 | 30·85 |
| 1881 | 0·10 | 0·12 | 2·25 | ... | 1·01 | 7·72 | 14·50 | 16·69 | 1·91 | 7·35 | ... | ... | 51·65 |
| 1882 | ... | 0·33 | ... | 0·07 | 0·33 | 3·64 | 11·09 | 15·84 | 4·24 | 1·20 | 3·57 | ... | 40·31 |
| 1883 | 2·14 | ... | 2·11 | 0·38 | 0·45 | 5·31 | 10·14 | 7·99 | 7·35 | 0·49 | 1·62 | ... | 37·98 |
| Mean | 0·58 | 0·54 | 0·72 | 0·38 | 1·11 | 6·20 | 13·11 | 11·56 | 7·33 | 2·45 | 0·53 | 0·23 | 44·74 |
| 1884 | ... | 0·15 | ... | ... | 0·63 | 2·70 | 7·30 | 9·58 | 8·70 | 1·39 | ... | 0·10 | 30·55 |
| 1885 | 0·42 | 1·02 | ... | 0·06 | 1·28 | 10·07 | 10·54 | 17·89 | 9·05 | 3·30 | ... | 2·06 | 55·69 |
| 1886 | ... | 0·10 | 2·37 | ... | 2·14 | 6·63 | 6·41 | 7·91 | 14·08 | 9·35 | 0·64 | ... | 49·63 |
| Mean | 0·49 | 0·52 | 0·73 | 0·31 | 1·15 | 6·25 | 12·22 | 11·60 | 7·91 | 2·84 | 0·47 | 0·32 | 44·81 |

No. 172. HAZARIBAGH.

Latitude N. 24°. Longitude E. 85° 24′. Elevation 2,010 feet.

Administration: BENGAL. Rainfall Province No. VII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | ? | ? | ? | ? | ... | 7·09 | 19·35 | 15·67 | 1·96 | 7·59 | ... | ... | ? |
| 1849 | 0·80 | 0·15 | 0·11 | 0·10 | 0·38 | 4·27 | 3·86 | 12·90 | 4·45 | 1·80 | ... | 0·75 | 29·57 |
| 1850 | 1·50 | 1·05 | 0·60 | 0·30 | ... | 20·10 | 6·90 | 6·85 | 7·80 | 3·85 | 0·65 | ... | 49·60 |
| 1851 | ... | 1·00 | 0·35 | 0·40 | 0·50 | 8·76 | 7·95 | 5·70 | 5·65 | 0·90 | 0·85 | ... | 32·06 |
| 1852 | 0·20 | ... | 1·85 | 0·35 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1853 | Not on record. | | | | | | | | | | | | |
| 1854 | ... | 2·13 | ... | ... | 1·37 | 8·45 | ? | 14·45 | 14·43 | 4·16 | 1·73 | ... | ? |
| 1855 | 0·71 | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | 0·84 | ... | ... | 0·48 | 8·88 | 16·73 | 17·39 | 4·69 | 3·19 | ... | ... | 52·20 |
| 1861 to 1866 | Not on record. | | | | | | | | | | | | |
| 1867 | 0·80 | 0·40 | 0·50 | 1·70 | 2·10 | 9·60 | 16·90 | 11·60 | 4·60 | 3·35 | 0·96 | ... | 52·51 |
| 1868 | 0·26 | 0·85 | 0·64 | ... | 1·54 | 14·92 | 9·66 | 11·80 | 9·11 | 0·53 | ... | ... | 49·31 |
| 1869 | 0·65 | ... | 1·97 | ... | 1·35 | 10·56 | 15·24 | 4·97 | 6·64 | 6·99 | ... | 0·01 | 48·38 |
| 1870 | 0·10 | 0·18 | 0·92 | 0·73 | ... | 8·78 | 17·11 | 14·45 | 10·98 | 5·92 | ... | ... | 59·17 |
| 1871 | ... | 0·20 | 0·88 | 0·35 | 2·79 | 4·90 | 12·43 | 18·76 | 14·13 | 1·26 | ... | 0·43 | 56·13 |
| 1872 | 0·24 | 0·75 | 0·14 | 0·81 | 0·62 | 2·42 | 7·99 | 11·57 | 6·88 | 3·68 | ... | ... | 35·10 |
| 1873 | ... | ... | 0·94 | 0·11 | 0·22 | 2·20 | 23·03 | 20·32 | 12·07 | 0·15 | ... | 0·10 | 59·14 |
| 1874 | 0·79 | 3·19 | 0·42 | 0·31 | 1·18 | 10·82 | 9·78 | 16·35 | 8·01 | 8·19 | 1·17 | ... | 60·21 |
| 1875 | 1·87 | 1·74 | ... | 0·04 | 3·03 | 12·12 | 12·62 | 5·79 | 5·35 | 0·96 | ... | ... | 43·52 |
| 1876 | ... | ... | 0·02 | ... | 0·80 | 3·86 | 16·20 | 10·90 | 6·57 | 5·70 | ... | ... | 44·05 |
| 1877 | 1·96 | 2·71 | 0·75 | 1·12 | 2·24 | 7·25 | 10·15 | 12·55 | 4·95 | 0·76 | 0·01 | 1·09 | 45·54 |
| 1878 | 0·20 | 0·35 | 1·11 | 1·03 | 3·44 | 2·42 | 11·95 | 13·50 | 7·15 | 0·94 | 1·02 | 0·25 | 43·36 |
| 1879 | ... | 0·60 | ... | ... | 1·47 | 7·42 | 13·09 | 12·17 | 7·07 | 2·53 | ... | ... | 44·35 |
| 1880 | 0·15 | 1·39 | 0·05 | 0·13 | 4·77 | 9 20 | 11·46 | 13·43 | 7·46 | 4·53 | 0·46 | 0·04 | 53·07 |
| 1881 | 0·25 | 0·12 | 2·01 | ... | 2·80 | 8·07 | 13·21 | 14·83 | 5·90 | 2·48 | ... | ... | 49·67 |
| 1882 | 0·04 | 0·61 | ... | 1·72 | 2·49 | 10·10 | 9·11 | 14·58 | 11·99 | 4·06 | 0·62 | ... | 55·32 |
| 1883 | 1·11 | 0·14 | 2·64 | ... | 1·54 | 7·06 | 19·61 | 6·53 | 11·56 | 0·20 | 0·47 | 0·36 | 51·22 |
| Mean | 0·48 | 0·80 | 0·69 | 0·40 | 1·53 | 8·23 | 12·92 | 12·48 | 7·80 | 3·21 | 0·35 | 0·13 | 49·02 |
| 1884 | ... | 0·67 | ... | ... | 1·32 | 6·43 | 6·70 | 14·92 | 8·53 | 2·01 | ... | 0·05 | 40·63 |
| 1885 | 0·10 | 1·20 | 1·13 | 0·15 | 1·51 | 14·38 | 12·92 | 16·76 | 9·87 | 0·99 | ... | 3·20 | 62·21 |
| 1886 | 0·06 | ... | 2·11 | 0·31 | 3·72 | 6·44 | 11·63 | 12·15 | 9·47 | 11·88 | 0·84 | ... | 58·61 |
| Mean | 0·44 | 0·78 | 0·74 | 0·37 | 1·60 | 8·33 | 12·62 | 12·73 | 7·97 | 3·41 | 0·34 | 0·24 | 49·57 |

No. 173. RANCHEE.

Latitude N. 23° 23′. Longitude E. 85° 22′. Elevation 2,169 feet.

Administration: BENGAL. Rainfall Province No. VII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | ? | ? | ? | ? | ... | 15·43 | 11·25 | 13·75 | 3·00 | 1·90 | ... | ... | ? |
| 1849 | ... | ... | ... | 0·30 | ... | 4·35 | 8·20 | 17·45 | 4·50 | 3·00 | ? | ? | 37·80 ? |
| 1850 | ? | ? | ? | ? | ... | 14·30 | 11·35 | 8·30 | 5·90 | 4·90 | ? | ? | ? |
| 1851 | ? | ? | ? | ? | ... | 3·35 | 6·70 | 5·50 | 6·25 | 2·95 | ... | ... | ? |
| 1852 | 0·80 | ... | 1·85 | 0·85 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1853 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | 1·50 | ... | 0·50 | 0·50 | 1·30 | 7·70 | 10·60 | 4·65 | 8 50 | ... | ... | 35·25 |
| 1861 | 7·50 | ... | 8·50 | 0·10 | 4·30 | 3·10 | ? | 4·40 | 7·40 | 2·90 | 0·30 | 1·30 | ? |
| 1862 | 0·60 | ... | ... | ... | 1·70 | 6·00 | 6·00 | 11·60 | 6·60 | 3·70 | ... | ... | 36·20 |
| 1863 | ... | ... | ... | ... | ? | 7·70 | 16·85 | 3·10 | ? | 4·55 | ... | ... | ? |
| 1864 | ... | 2·00 | 2·00 | 1·20 | 0·90 | 2·90 | 15·70 | 12·20 | ? | ? | 1·40 | ... | ? |
| 1865 | 0·50 | 2·50 | 1·95 | 0·40 | 4·20 | 5·10 | 11·40 | 8·30 | 4·30 | ... | ... | ... | 38·65 |
| 1866 | 1·30 | 4·10 | 0·30 | 1·80 | 0·60 | 6·40 | 11·20 | 5·70 | 11·20 | 2·50 | ... | 0·05 | 45·15 |
| 1867 | 0·50 | 0·60 | 1·40 | 1·80 | 0·65 | 7·70 | 8·30 | 11·75 | 4·70 | 3·85 | ... | ... | 41·25 |
| 1868 | 0·75 | 0·65 | 0·50 | ... | 2·15 | 10·72 | 5·45 | 7·50 | 16·35 | 1·62 | ... | ... | 45·69 |
| 1869 | 0·36 | 0·40 | 4·02 | ... | 3·30 | 4·00 | 11·48 | 6·48 | 5·15 | 5·19 | ... | ... | 40·38 |
| 1870 | 0·88 | 0·04 | 0·24 | 0·56 | 0·52 | 13·37 | 11·17 | 15·25 | 9·87 | 2·63 | ... | ... | 54·53 |
| 1871 | ... | ... | 2·13 | 0·36 | 3·40 | 14·75 | 12·84 | 14·29 | 13·36 | 0·26 | ... | 0·14 | 61·53 |
| 1872 | ... | 1·46 | 0·10 | 1·39 | 1·62 | 10·54 | 10·34 | 9·00 | 10·44 | 3·86 | 0·24 | ... | 48·99 |
| 1873 | ... | 0·04 | 1·59 | 0·50 | 1·21 | 2·26 | 17·59 | 13·93 | 12·20 | 0·63 | ... | ... | 49·95 |
| 1874 | 1·36 | 3·48 | 2·01 | 0·27 | 1·38 | 6·37 | 11·13 | 16·92 | 9·85 | 7·39 | 0·09 | ... | 60·25 |
| 1875 | 1·70 | 1·51 | ... | 1·08 | 4·63 | 8·04 | 19·29 | 12·97 | 8·74 | 1·07 | ... | ... | 59·03 |
| 1876 | ... | ... | 0·21 | ... | 0·90 | 8·52 | 23·78 | 12·96 | 6·68 | 7·88 | ... | ... | 60·93 |
| 1877 | 3·32 | 3·49 | 1·65 | 2·58 | 3·10 | 6·95 | 6·13 | 25·21 | 4·62 | 0·33 | 0·93 | 0·97 | 59·28 |
| 1878 | 0·22 | 0·61 | 2·21 | 3·12 | 4·93 | 2·95 | 9·54 | 11·65 | 10·50 | 0·19 | 1·03 | 0·85 | 47·80 |
| 1879 | ... | 1·74 | ... | ... | 1·95 | 5·40 | 10·28 | 15·12 | 10·92 | 3·35 | ... | ... | 48·76 |
| 1880 | 0·12 | 3·19 | ... | 0·11 | 3·34 | 6·40 | 10·17 | 15·14 | 8·05 | 6·44 | 0·43 | 0·04 | 53·43 |
| 1881 | ... | 0·38 | 2·62 | 0·17 | 0·47 | 10·05 | 17 84 | 16·61 | 4·17 | 1·14 | 1·03 | ... | 54·48 |
| 1882 | ... | 1·81 | ... | 0·38 | 5·25 | 8·64 | 15·21 | 13·37 | 12·18 | 4·09 | 0·42 | ... | 61·35 |
| 1883 | 0·55 | 0·10 | 3·16 | 0·47 | 2·16 | 13·49 | 20·43 | 10·01 | 9·46 | 0·28 | 2·09 | 0·47 | 62·67 |
| Mean | 0·79 | 1·14 | 1·40 | 0·69 | 1·97 | 7·50 | 12·12 | 11·75 | 8·12 | 3·15 | 0·31 | 0·15 | 49·09 |
| 1884 | ... | ... | ... | ... | 2·74 | 8·04 | 14·08 | 11·34 | 12·79 | 3·55 | ... | 0·12 | 52·66 |
| 1885 | 0·45 | 1·32 | 1·15 | 0·42 | 0·97 | 11·24 | 14·27 | 16·75 | 6·38 | 0·46 | 0·06 | 2·61 | 56·08 |
| 1886 | 0·25 | ... | 2·70 | 0·14 | 4·40 | 7·24 | 11·66 | 13·90 | 8·92 | 6·53 | 0·93 | ... | 56·67 |
| Mean | 0·73 | 1·07 | 1·39 | 0·64 | 2·04 | 7·63 | 12·24 | 11·97 | 8·25 | 3·19 | 0·31 | 0·23 | 49·69 |

No. 174. NYA DOOMKA.

Latitude N. 24° 16′. Longitude E. 87° 18′. Elevation 120 feet.

Administration: BENGAL. Rainfall Province No. VII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | ... | ... | 0·95 | 2·01 | 7·92 | 12·02 | 15·38 | 10·04 | 13·16 | 0·07 | ... | ... | 61·55 |
| 1872 | ... | 1·90 | 0·06 | 1·36 | 2·09 | 8·80 | 12·70 | 9·78 | 6·90 | 5·54 | ... | 0·15 | 49·28 |
| 1873 | 0·26 | ... | 1·54 | 0·14 | 2·14 | 5·47 | 19·95 | 13·70 | 9·64 | ... | 0·06 | 0·01 | 52·91 |
| 1874 | 0·11 | 1·87 | 1·32 | 0·57 | 1·31 | 9·17 | 9·53 | 15·58 | 13·32 | 7·47 | ... | ... | 60·25 |
| 1875 | 2·29 | 0·57 | 0·22 | 1·57 | 4·40 | 13·58 | 9·55 | 15·10 | 6·50 | 1·55 | ... | ... | 55·33 |
| 1876 | ... | ... | 0·17 | 1·49 | 2·46 | 15·29 | 13·97 | 18·46 | 7·44 | 3·83 | ... | ... | 63·11 |
| 1877 | 3·14 | 1·41 | 0·10 | 2·89 | 3·16 | 8·29 | 12·35 | 14·08 | 12·77 | 4·94 | ... | 1·85 | 64·98 |
| 1878 | 0·37 | 0·12 | 0·13 | 1·68 | 3·37 | 3·99 | 14·73 | 17·71 | 13·15 | 2·41 | 1·90 | 0·02 | 59·58 |
| 1879 | ... | 0·99 | ... | ... | 0·64 | 7·77 | 14·55 | 15·96 | 13·69 | 7·79 | ... | 0·01 | 61·40 |
| 1880 | 0·38 | 3·53 | ... | 1·16 | 3·26 | 15·82 | 11·63 | 13·28 | 8·41 | 9·66 | 0·09 | 0·02 | 67·24 |
| 1881 | ... | ... | 3·03 | 0·76 | 5·20 | 8·51 | 24·35 | 9·67 | 7·88 | 7·47 | ... | ... | 66·87 |
| 1882 | ... | 0·77 | ... | 1·17 | 6·08 | 6·06 | 5·11 | 13 85 | 8·99 | 9·11 | 0·69 | ... | 51·83 |
| 1883 | 0·40 | ... | 0·95 | ... | 1·43 | 14·03 | 13·60 | 13·27 | 3·05 | ... | 0·13 | 0·98 | 47·84 |
| Mean | 0·53 | 0·86 | 0·65 | 1·14 | 3·34 | 9·91 | 13·65 | 13·88 | 9·61 | 4·60 | 0·22 | 0·23 | 58·62 |
| 1884 | 0·11 | 0·24 | ... | 1·67 | 3·02 | 2·65 | 8·17 | 5·51 | 7·66 | 3·67 | ... | 0·02 | 32·72 |
| 1885 | 0·41 | 0·33 | 0·64 | 0·18 | 0·53 | 7·65 | 16·60 | 16·59 | 16·79 | 1·19 | ... | 0·71 | 61·62 |
| 1886 | ... | 0·01 | 2·14 | 0·85 | 3·78 | 9·40 | 18·56 | 15·99 | 21·85 | 2·81 | ... | ... | 75 39 |
| Mean | 0·47 | 0·73 | 0·70 | 1·09 | 3·17 | 9·28 | 13·80 | 13·66 | 10·70 | 4·22 | 0·18 | 0·24 | 58·24 |

No. 175. GOBINDPUR.

Latitude N. 23° 50.′ Longitude E. 86° 34.′ Elevation 800 feet.

Administration: BENGAL. Rainfall Province No. VII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | P | P | P | P | P | P | 16·05 | 17·89 | 11·11 | 0·88 | ... | ... | P |
| 1872 | ... | 1·35 | ... | 0·60 | 0·47 | 9·06 | 14·51 | 12·69 | 4·19 | 9·47 | ... | ... | 52·34 |
| 1873 | ... | ... | 1·90 | 1·40 | 0·50 | 2·73 | 21·73 | 11·41 | 9·95 | ... | ... | ... | 49·62 |
| 1874 | 0·88 | 4·20 | 0·70 | ... | 2·00 | 14·11 | 10·76 | 10·58 | 8·88 | 6·87 | ... | ... | 58·98 |
| 1875 | 1·37 | 0·75 | ... | 0·99 | 3·05 | 12·55 | 11·54 | 13·62 | 5·93 | 1·78 | ... | ... | 51·58 |
| 1876 | ... | ... | ... | 0·86 | 1·07 | 11·48 | 11·75 | 21·41 | 5·89 | 5·58 | ... | ... | 58 04 |
| 1877 | 3·14 | 2·70 | 0·30 | 1·15 | 1·00 | 5·20 | 8·07 | 14·60 | 8·42 | 2·54 | ... | 1·09 | 48·21 |
| 1878 | 0·63 | 0·31 | 0·65 | 1·15 | 6·73 | 3·87 | 14·95 | 15·03 | 6·17 | 10·05 | 1·28 | 0·80 | 61·62 |
| 1879 | ... | 1·06 | ... | ... | 1·34 | 7·87 | 15·54 | 13 89 | 8·92 | 9·96 | ... | ... | 58·58 |
| 1880 | ... | 2·57 | 0·40 | 1·50 | 2·87 | 14·25 | 12·37 | 15·83 | 6·53 | 3·75 | 0·05 | ... | 60·12 |
| 1881 | 0·01 | ... | 1·48 | 0·02 | 0·61 | 5·11 | 12·46 | 9·06 | 3·76 | 2·59 | 0·08 | ... | 35·18 |
| 1882 | 0·02 | 0·75 | ... | 0·32 | 3·09 | 5·10 | 5·54 | 7·54 | 5·69 | 3·00 | 0·07 | ... | 31·12 |
| 1883 | 0·79 | 0·06 | 0 95 | 0·15 | 1·96 | 7·29 | 10·97 | 8·70 | 5·77 | 0·04 | 0·15 | 0·61 | 37 44 |
| Mean | 0·57 | 1·15 | 0·53 | 0·68 | 2·06 | 8·22 | 12·79 | 13·25 | 7·02 | 4·35 | 0·13 | 0·19 | 50·94 |

GOBINDPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | ... | 0·09 | ... | 0·99 | 0·73 | 1·92 | 9·06 | 6·84 | 8·26 | 3·54 | ... | ... | 31·43 |
| 1885 | ... | 0·70 | 0·26 | ... | 1·17 | 6·60 | 9·55 | 14·70 | 7·00 | 1·09 | ... | 0·89 | 41·96 |
| 1886 | ... | ... | 0·24 | ... | 1·47 | 5·11 | 11·10 | 9·04 | 12·76 | 8·94 | 0·04 | ... | 48·70 |
| Mean | 0·46 | 0·97 | 0·46 | 0·61 | 1·87 | 7·48 | 12·25 | 12·68 | 7·08 | 4·38 | 0·10 | 0·21 | 48·55 |

No. 176. CHYBASSA.

Latitude N. 22° 33′. Longitude E. 85° 51′. Elevation 746 feet.

Administration: BENGAL. Rainfall Province No. VII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1869 | ? | ? | ? | ? | 2·56 | 8·07 | 11·12 | 9·35 | 12·45 | 5·68 | ... | ... | ? |
| 1870 | 1·64 | ·... | 0·52 | 0·45 | 2·25 | 8·14 | 14·36 | 10·82 | 8·63 | 6·01 | 0·66 | ... | 53·48 |
| 1871 | ... | 0·68 | 2·45 | 1·85 | 3·66 | 8·56 | 11·68 | 15·55 | 11·55 | 2·42 | ... | 0·16 | 58·56 |
| 1872 | ... | 0·25 | 0·17 | 1·90 | 1·59 | 9·52 | 11·65 | 7·31 | 12·52 | 5·66 | 0·05 | 0·54 | 51·16 |
| 1873 | 0·19 | ... | 2·32 | 1·65 | 2·66 | 3·42 | 11·47 | 10·01 | 5·94 | 0·88 | ... | 0·25 | 38·79 |
| 1874 | 0·77 | 3·68 | 2·42 | 0·03 | 1·84 | 7·20 | 11·65 | 15·55 | 10·59 | 4·14 | 0·42 | ... | 58·29 |
| 1875 | 2·21 | 1·23 | 0·26 | 0·79 | 4·84 | 11·03 | 18·90 | 12·27 | 8·52 | 3·71 | ... | ... | 63·76 |
| 1876 | ... | ... | 0·51 | ... | 3·77 | 13·04 | 18·04 | 15·41 | 5·59 | 4·90 | ... | ... | 61·26 |
| 1877 | 3·00 | 2·95 | 3·61 | 1·96 | 3·32 | 13·60 | 13·08 | 19·51 | 5·04 | 1·29 | 0·11 | 0·29 | 67·76 |
| 1878 | 1·38 | 0·58 | 1·41 | 2·12 | 5·95 | 3·71 | 13·60 | 11·85 | 6·66 | 0·96 | 1·21 | 1·32 | 50·75 |
| 1879 | ... | 1·16 | ... | ... | 0·38 | 6·42 | 13·52 | 15·24 | 7·66 | 3·18 | ... | 0·11 | 47·67 |
| 1880 | ... | 2·35 | 0·58 | 0·26 | 10·72 | 8·64 | 8·57 | 21·14 | 12·35 | 2·54 | 0·29 | 0·26 | 67·70 |
| 1881 | 0·25 | ... | 2·69 | 0·15 | 3·55 | 7·55 | 25·88 | 21·22 | 7·99 | 0·85 | ... | ... | 70·13 |
| 1882 | 0·02 | 0·18 | ... | 0·08 | 6·78 | 8·76 | 15·15 | 7·88 | 10·82 | 4·33 | 0·87 | ... | 54·87 |
| 1883 | 1·53 | 0·55 | 3·74 | 0·92 | 1·21 | 8·44 | 15·92 | 17·74 | 7·02 | 0·62 | 0·11 | 1·10 | 58·90 |
| Mean | 0·79 | 0·97 | 1·48 | 0·87 | 3·67 | 8·41 | 14·31 | 14·06 | 8·89 | 3·14 | 0·25 | 0·27 | 57·11 |
| 1884 | ... | 0·94 | ... | ... | 2·51 | 5·43 | 18·13 | 7·31 | 11·69 | 1·51 | ... | 0·30 | 46·92 |
| 1885 | 0·42 | 0·63 | 1·06 | 0·06 | 0·71 | 12·35 | 7·81 | 20·58 | 4·75 | 4·63 | 0·29 | 2·65 | 55·94 |
| 1886 | 0·60 | ... | 1·20 | 0·30 | 5·33 | 7·52 | 13·62 | 5·50 | 6·33 | 5·10 | 0·14 | ... | 45·64 |
| Mean | 0·71 | 0·84 | 1·35 | 0·74 | 3·74 | 8·41 | 14·12 | 13·57 | 8·67 | 3·25 | 0·23 | 0·39 | 56·02 |

No. 177. PURULIA.

Latitude N. 23° 20′. Longitude E. 86° 25′. Elevation 800 feet.

Administration: BENGAL. Rainfall Province No. VII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | ? | ? | ? | ? | 0·26 | 9·65 | 4·95 | 9·39 | 3·30 | 8·70 | ... | ? | ? |
| 1849 | ? | ? | ? | 0·40 | 0·70 | 4·75 | 5·50 | 13·55 | 3·35 | 2·00 | ... | 2·00 | ? |
| 1850 | 0·40 | 2·80 | ... | 2·10 | 0·50 | 14·40 | 5·00 | 9·20 | 10·20 | 8·65 | ... | ... | 53·25 |

PURULIA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1851 | 0·03 | 0·04 | 0·20 | 0·70 | ... | 5·50 | 8·30 | 7·30 | 3·50 | 3·00 | ... | ... | 28·57 |
| 1852 | 0·80 | ... | 1·70 | 0·40 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1853 to 1866 | Not on record. | | | | | | | | | | | | |
| 1867 | 0·09 | ... | 1·00 | 0·50 | 1·66 | 6·25 | ? | 9·77 | 9·00 | 8·80 | 0·30 | ... | ? |
| 1868 | ... | 0·90 | ... | ... | 0·40 | 17·70 | 4·50 | 9·50 | 8·60 | 1·50 | ... | ... | 43·10 |
| 1869 | ? | ? | ? | ? | 1·10 | 8·30 | 17·41 | 7·05 | 9·30 | 5·95 | ... | ... | ? |
| 1870 | 0·87 | ... | 0·36 | 0·84 | 1·26 | 7·12 | 12·36 | 17·17 | 4·68 | 2·58 | 0·19 | ... | 47·43 |
| 1871 | ... | 0·08 | 2·30 | 1·27 | 4·31 | 9·30 | 18·02 | 17·65 | 7·80 | 0·20 | ... | 0·08 | 61·01 |
| 1872 | ... | 1·08 | ... | 1·74 | 2·59 | 12·89 | 9·51 | 8·01 | 5·19 | 6·68 | 0·53 | ... | 48·22 |
| 1873 | ... | ... | 2·36 | 1·78 | 1·17 | 1·70 | 19·33 | 12·50 | 3·01 | 0·15 | ... | ... | 42·00 |
| 1874 | 2·07 | 2·97 | 0·35 | 0·67 | 0·91 | 7·87 | 4·19 | 9·20 | 17·07 | 3·80 | 0·19 | ... | 49·29 |
| 1875 | 1·28 | 0·82 | ... | 0·32 | 4·65 | 11·00 | 14·16 | 12·59 | 6·94 | 1·42 | ... | ... | 53·18 |
| 1876 | ... | ... | 0·51 | ... | 0·88 | 10·09 | 17·57 | 19·38 | 7·31 | 9·32 | ... | ... | 65·06 |
| 1877 | 1·04 | 2·72 | 1·55 | 1·57 | 6·71 | 10·09 | 9·85 | 19·32 | 7·36 | 1·16 | ... | 0·34 | 61·71 |
| 1878 | 0·14 | 1·57 | 3·06 | 2·90 | 7·44 | 5·46 | 10·29 | 13·20 | 13·93 | 1·84 | 0·76 | 0·52 | 61·11 |
| 1879 | ... | 0·96 | 0·01 | ... | 0·98 | 5·66 | 9·68 | 8·81 | 5·33 | 3·12 | ... | 0·03 | 34·58 |
| 1880 | 0·40 | 4·25 | 1·15 | 0·80 | 7·04 | 11·42 | 6·59 | 15·80 | 11·18 | 2·65 | 0·14 | 0·01 | 61·43 |
| 1881 | ... | 0·11 | 1·49 | 0·12 | 2·58 | 9·50 | 16·44 | 18·76 | 5·04 | 5·36 | 0·26 | ... | 59 66 |
| 1882 | ... | 0·92 | ... | 1·59 | 8·07 | 12·35 | 10·97 | 8·32 | 10·29 | 3·86 | 0·15 | ... | 56·52 |
| 1883 | 0·36 | 0·35 | 3·70 | 0·64 | 1·81 | 13·90 | 16·18 | 16·60 | 8·00 | 0·89 | 1·00 | 1·26 | 64·69 |
| Mean | 0·39 | 1·03 | 1·04 | 0·92 | 2·62 | 9·28 | 11·04 | 12·53 | 7·64 | 3·89 | 0·17 | 0·21 | 50·76 |
| 1884 | ... | 0·26 | 0·03 | 0·14 | 2·41 | 8·30 | 11·75 | 7·77 | 7·74 | 2·15 | ... | 0·08 | 40·63 |
| 1885 | 0·21 | 1·51 | 0·39 | 0·24 | 0·68 | 9·81 | 11 06 | 22·17 | 6·57 | 4·12 | 0·11 | 2·07 | 58·94 |
| 1886 | 0·05 | ... | 1·11 | ... | 4·12 | 5·78 | 12·36 | 7·38 | 12·66 | 2·86 | 0·28 | ... | 46·60 |
| Mean | 0·35 | 0·97 | 0·97 | 0·81 | 2·59 | 9·12 | 11·13 | 12·52 | 7·81 | 3·78 | 0·16 | 0·28 | 50·49 |

No. 178. SOORY.

Latitude N. 23° 54′. Longitude E. 87° 34′. Elevation 180 feet,

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | ? | ? | ? | ? | 3·50 | 5·40 | 7·95 | 6·99 | 4·72 | 6·50 | ... | ... | ? |
| 1849 | 1·35 | 0·50 | ... | ... | 1·30 | 6·85 | 13·80 | 12·90 | 1·07 | 1·40 | ... | 1·40 | 40·57 |
| 1850 | 0·40 | 1·40 | 0·30 | 0·60 | ... | 8·80 | 10·00 | 15·70 | 14·10 | 7·90 | ... | 0·30 | 59·50 |
| 1851 | 0·60 | 1·10 | ... | 1·50 | ... | 3·40 | 11·30 | 5·40 | 2·70 | 4·90 | ... | ... | 30·90 |
| 1852 | 1·00 | 3·30 | 1·60 | 1·00 | 3·90 | 18·70 | 16·60 | 8·00 | 14·10 | 0·50 | ... | ? | 68·70? |
| 1853 | ... | 0·30 | ... | ? | ? | 7·45 | 10·35 | 8·40 | 5·90 | ? | ... | ... | ? |
| 1854 | ... | 0·50 | ... | ? | ? | 17·10 | 8·90 | 21·90 | 9·60 | ? | ... | ... | ? |
| 1855 to 1866 | Not on record. | | | | | | | | | | | | |
| 1867 | 0·80 | 0·30 | 0·40 | 1·20 | 4·90 | 7·60 | 14·80 | 12·00 | 10·10 | 2·50 | 1·20 | ? | 55·80? |

SOORY—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | 0·10 | 0·60 | ... | 0·26 | 2·54 | 8·85 | 8·85 | 10·45 | 9·20 | 0·40 | ... | ... | 41·25 |
| 1869 | ... | 0·90 | 2·65 | ... | 2·45 | 14·30 | 19·85 | 12·25 | 18·05 | 5·85 | ... | ... | 76·30 |
| 1870 | ... | ... | 0·10 | 0·46 | 2·48 | 14·51 | 14·42 | 16·36 | 7·98 | 3·88 | ... | ... | 60·19 |
| 1871 | ... | 0·09 | 2·16 | 2·26 | 4·34 | 9·60 | 10·80 | 17·37 | 12·87 | 1·92 | ... | ... | 61·41 |
| 1872 | 0·07 | 2·48 | ... | 1·62 | 5·09 | 3·28 | 12·74 | 10·37 | 5·77 | 9·42 | 0·10 | ... | 50·94 |
| 1873 | 0·02 | ... | 1·13 | 0·30 | 1·12 | 3·92 | 24·74 | 17·49 | 3·74 | 0·91 | 0·08 | ... | 53·45 |
| 1874 | 0·53 | 3·80 | 1·33 | 0·53 | 2·06 | 14·28 | 7·18 | 10·87 | 21·63 | 7·34 | 0·25 | ... | 69·80 |
| 1875 | 2·18 | 0·96 | 0·01 | 1·35 | 2·58 | 19·88 | 9·26 | 17·35 | 8·95 | 2·11 | ... | ... | 64·63 |
| 1876 | ... | 0·01 | 0·12 | 1·26 | 2·91 | 12·03 | 17·44 | 11·13 | 10·65 | 3·52 | ... | ... | 59·07 |
| 1877 | 2·70 | 1·97 | 0·75 | 0·78 | 2·06 | 5·59 | 11·04 | 18·58 | 12·23 | 1·15 | ... | 0·71 | 57·56 |
| 1878 | 0·28 | 0·66 | 0·42 | 1·87 | 9·23 | 9·36 | 11·34 | 14·68 | 13·09 | 1·00 | 1·31 | 0·17 | 63·41 |
| 1879 | ... | 1·08 | ... | 0·15 | 3·03 | 9·45 | 10·35 | 9·49 | 14·46 | 0·89 | ... | 0·13 | 49·03 |
| 1880 | 0·31 | 3·98 | 0·37 | 0·19 | 1·88 | 14·35 | 10·07 | 11·57 | 7·24 | 6·95 | 0·03 | 0·02 | 56·96 |
| 1881 | ... | ... | 0·78 | 0·88 | 3·44 | 8·44 | 16·91 | 15·44 | 5·36 | 5·11 | ... | ... | 56·36 |
| 1882 | 0·03 | 0·60 | 0·24 | 0·66 | 3·81 | 10·92 | 7·21 | 9·73 | 7·66 | 7·92 | 0·06 | ... | 48·84 |
| 1883 | 0·27 | 0·03 | 1·73 | 0·82 | 4·74 | 18·91 | 19·41 | 16·87 | 3·58 | 0·01 | 0·16 | 0·79 | 67·32 |
| Mean | **0·46** | **1·07** | **0·61** | **0·84** | **3·06** | **10·54** | **12·72** | **12·97** | **9·36** | **3·73** | **0·13** | **0·16** | **55·65** |
| 1884 | ... | 0·35 | 0·06 | 2·03 | 2·99 | 5·65 | 9·96 | 11·08 | 9·73 | 3·64 | ... | 0·03 | 45·52 |
| 1885 | 0·12 | 0·70 | 0·41 | 0·83 | 0·23 | 10·15 | 9·36 | 13·91 | 16·77 | 1·66 | 0·10 | 0·82 | 55·06 |
| 1886 | ... | ... | 0·59 | 1·08 | 4·35 | 10·88 | 14·06 | 14·82 | 17·33 | 5·38 | ... | 0·01 | 68·50 |
| Mean | **0·41** | **0·99** | **0·58** | **0·90** | **3·00** | **10·36** | **12·54** | **13·00** | **9·95** | **3·71** | **0·12** | **0·18** | **55·74** |

No. 179. BANKOORA.

Latitude N. 23° 14′. Longitude E. 87° 7′. Elevation 150 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1831 | ... | 3·00 | 1·64 | 4·40 | 0·34 | 15·99 | 10·99 | 11·29 | 10·26 | 5·85 | 4·46 | 1·44 | 69·66 |
| 1832 | 0·16 | 1·27 | 3·34 | 1·16 | 4·02 | 5·33 | 12·22 | 16·57 | 8·28 | 5·22 | 0·11 | ... | 57·68 |
| 1833 to 1852 | Not on record. | | | | | | | | | | | | |
| 1853 | ? | ... | ... | 0·20 | ? | 8·27 | 13·00 | 6·88 | 10·41 | ? | ... | ? | ? |
| 1854 | ? | 3·56 | 0·34 | ? | ? | 10·02 | 8·04 | 8·56 | 12·91 | ? | 0·91 | ... | ? |
| 1855 | 0·10 | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1856 to 1858 | Not on record. | | | | | | | | | | | | |
| 1859 | ... | 1·10 | 9·18 | 2·50 | 1·85 | 10·70 | 13·00 | 13·70 | 6·00 | 6·50 | ... | ... | 64·53 |
| 1860 | ... | 0·20 | 1·00 | 1·90 | ? | 4·00 | 13·10 | 5·10 | 10·50 | 2·70 | ... | ... | ? |
| 1861 | 0·35 | ... | 0·25 | 0·40 | 5·55 | 12·35 | 13·20 | 6·95 | 15·30 | 6·70 | 2·80 | 0·35 | 64·20 |
| 1862 | 0·80 | ... | 0·20 | 2·70 | 2·00 | 10·30 | 22·10 | 7·65 | 5·00 | 11·05 | ... | ... | 61·80 |

BANKOORA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | 0·50 | ... | 0·40 | 4·35 | 12·70 | 11·70 | 12·60 | 9·30 | 3·65 | 0·40 | ... | 55·60 |
| 1864 | ... | ... | 0·20 | 1·90 | 3·70 | 4·80 | 9·50 | 9·50 | 9·20 | 10·50 | ... | ... | 48·40 |
| 1865 | ... | 1·10 | 2·30 | 4·40 | 3·90 | 15 80 | 15·85 | 6·80 | 10·00 | 0·50 | ... | ... | 60·65 |
| 1866 | 1·45 | 7·25 | 0·55 | 2·20 | 1·60 | 15 05 | 16·00 | 10·85 | 8·95 | 2·90 | ... | ... | 66·80 |
| 1867 | 1·25 | 0·30 | 1·12 | 0·85 | 1·05 | 5 70 | 15·45 | 12·25 | 6·05 | 3·60 | 0·90 | ... | 48·52 |
| 1868 | 0·50 | 0·80 | ... | 3·00 | 2·75 | 15·25 | 6·55 | 15·30 | 17·10 | 1·00 | ... | ... | 62·25 |
| 1869 | 0·30 | 0·80 | 4·10 | 0·40 | 3·50 | 7·45 | 15·50 | 4·80 | 4·65 | 9·10 | ... | ... | 50·60 |
| 1870 | 0·35 | ... | 0·10 | 1·20 | 1·60 | 7·75 | 12·04 | 10·58 | 4·55 | 3·46 | 0·62 | ... | 42·25 |
| 1871 | ... | 0·48 | 3·28 | 3·09 | 8·94 | 9·13 | 12·47 | 12·99 | 10·25 | 0·67 | ... | 0·18 | 61·48 |
| 1872 | ... | 0·96 | ... | 2·14 | 2·70 | 5·60 | 5·34 | 8·01 | 8·85 | 10·81 | ... | ... | 44 41 |
| 1873 | ... | ... | 5·49 | 1·45 | 2·26 | 3·28 | 15·18 | 14·72 | 3·65 | 0·80 | 0·44 | 0·07 | 47·34 |
| 1874 | 1·45 | 2·84 | 0·74 | 0·07 | 2·76 | 11·64 | 7·35 | 12·14 | 5·05 | 5·87 | ... | ... | 49 91 |
| 1875 | 0·52 | 0·25 | ... | 1·06 | 5·99 | 7·49 | 8·25 | 14·36 | 5·08 | 4·50 | ... | ... | 47·50 |
| 1876 | ... | ... | 1·10 | 0·23 | 2·58 | 11·23 | 20·33 | 11·70 | 13·88 | 9·10 | ... | ... | 70·15 |
| 1877 | 0·79 | 1·61 | 1·05 | 1·31 | 3·29 | 6·88 | 8·68 | 16·05 | 11·30 | 3·55 | ... | 0·32 | 54·83 |
| 1878 | 0·89 | 1·01 | 3·32 | 2·59 | 5·23 | 8·20 | 6·32 | 15·57 | 8·57 | 1·45 | 1·38 | 0·30 | 54·83 |
| 1879 | ... | 0·92 | 0·14 | 0·43 | 2·44 | 6·50 | 11·50 | 9·43 | 11·96 | 4·57 | ... | ... | 47·89 |
| 1880 | 0·22 | 4·18 | 0·75 | 0·60 | 5·08 | 22·99 | 11·81 | 19·82 | 7·16 | 3·86 | 0·16 | 0·10 | 76·73 |
| 1881 | ... | 0·27 | 1·59 | 0·77 | 1·31 | 18·03 | 23 07 | 17·88 | 8·07 | 2·28 | ... | ... | 73·27 |
| 1882 | ... | 0·88 | ... | 3·38 | 5·66 | 8·00 | 8·73 | 12·50 | 7·13 | 5·93 | 0·15 | ... | 52·36 |
| 1883 | 0·46 | 0·45 | 2·07 | 1·16 | 2·51 | 7·20 | 18·80 | 12·94 | 5·32 | 0·06 | 0·11 | 1·44 | 52·52 |
| Mean | **0·34** | **1·16** | **1·51** | **1·61** | **3·34** | **9·92** | **12·62** | **11·64** | **8·78** | **4·67** | **0·43** | **0·15** | **56·17** |
| 1884 | ... | 1·27 | ... | 2·00 | 4·61 | 9·04 | 12·67 | 11·20 | 11·10 | 9·75 | ... | ... | 61·64 |
| 1885 | 0·08 | 0·56 | 1·16 | 0·27 | 1·97 | 11·00 | 14·71 | 28·42 | 6·27 | 2·77 | 0·09 | 1·51 | 68·81 |
| 1886 | 0·35 | ... | 2·31 | 1·62 | 5·10 | 6·54 | 14·26 | 10·97 | 10·86 | 2·97 | 1·25 | ... | 56·23 |
| Mean | **0·32** | **1·11** | **1·48** | **1·58** | **3·40** | **9·82** | **12·74** | **12·13** | **8·84** | **4·72** | **0·44** | **0·18** | **56·76** |

No. 180. BURDWAN.

Latitude N. 23° 14′ Longitude E. 87° 54′. Elevation 99 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1860 | ... | ... | ... | P | 2·80 | P | 10·20 | 11·80 | 11·30 | 3·60 | 2·70 | ... | P |
| 1861 | 0 60 | ... | 0·30 | 1·30 | 7·40 | 16·50 | 28·30 | 8·60 | 19·70 | 13·10 | 2·90 | 0·60 | 99·30 |
| 1862 | 0·40 | ... | 0·70 | 7·70 | 5·40 | 15·00 | 18·65 | 5·50 | 7·70 | 12·65 | ... | 0·30 | 74·00 |
| 1863 | ... | 0·50 | ... | 1·65 | 4·45 | 17·50 | 13·90 | 15·30 | 4·90 | 2·00 | 0·30 | ... | 60·50 |
| 1864 | ... | 1·20 | 0·90 | 1·50 | 5·90 | 7·35 | 15·50 | 9·70 | 4·20 | 8·30 | 0·30 | ... | 54·85 |
| 1865 | ... | 2·60 | 1·90 | 1·90 | 16·30 | 5·20 | 14·00 | 4·00 | 6·60 | ... | ... | 0·10 | 52 60 |
| 1866 | 2·30 | 0·30 | 0·40 | 2·35 | 1·50 | 16·50 | 10·70 | 13·30 | 5·60 | 3·40 | ... | ... | 56·35 |
| 1867 | 0·30 | 0·30 | 1·10 | 1·80 | 2·50 | 8·80 | 13·90 | 12·50 | 6·40 | 4·80 | 2·50 | ... | 54·90 |
| 1868 | ... | 0·70 | 0·90 | 1·90 | 6·50 | 8·20 | 10·80 | 2·60 | 14·50 | 1·00 | ... | ... | 74·10 |
| 1869 | 0·20 | 0·30 | 1·80 | 1·60 | 1·70 | 12·50 | 6·30 | 4·70 | 4·60 | 6·90 | ... | ... | 40·60 |

BURDWAN—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 0·20 | ... | ... | 3·09 | 0·64 | 6·30 | 7·98 | 11·73 | 7·40 | 3·14 | 0·06 | ... | 40·54 |
| 1871 | ... | 0·28 | 2·52 | 2·57 | 4·70 | 9·51 | 13·37 | 16·75 | 11·95 | 5·48 | ... | ... | 67·13 |
| 1872 | ... | 0·60 | ... | 2·02 | 2·51 | 7·27 | 6·66 | 8·33 | 5·52 | 9·44 | ... | 0·12 | 42·47 |
| 1873 | ... | ... | 2·00 | 4·17 | 3·44 | 6·44 | 19·60 | 17·15 | 4·44 | 0·20 | 0·08 | 1·15 | 58·67 |
| 1874 | 1·20 | 4·07 | 2·45 | 1·77 | 3·95 | 18 18 | 5·90 | 6·26 | 7·05 | 10·61 | ... | ... | 61·44 |
| 1875 | 1·42 | 0·17 | 1·92 | 7·77 | 5·31 | 10·07 | 6·69 | 8·18 | 13·40 | 1·73 | ... | ... | 56·66 |
| 1876 | ... | 0·44 | 2·52 | 1·42 | 1·67 | 9·52 | 10·43 | 13·32 | 8·07 | 3·00 | 0·24 | ... | 50·63 |
| 1877 | 0·42 | 1·77 | 1·54 | 2·01 | 5·12 | 5·61 | 9·67 | 19·41 | 2·57 | 2·20 | ... | 0·23 | 50·53 |
| 1878 | 0·10 | 0·19 | 1·05 | 4·57 | 12·35 | 2·75 | 10·54 | 14·98 | 10·33 | 3·81 | 1·33 | 0·22 | 62·22 |
| 1879 | ... | 1·16 | ... | 0·43 | 0·56 | 6·61 | 8·24 | 8·38 | 11·32 | 4·21 | ... | 0·15 | 41·06 |
| 1880 | 0·01 | 2·61 | 1·30 | 1·23 | 5·15 | 10·76 | 11·82 | 14·30 | 6·15 | 7·59 | 0·06 | 0·02 | 61·00 |
| 1881 | ... | 0·01 | 2·15 | 2·05 | 7·91 | 9·05 | 12·50 | 21·16 | 10·69 | 3·61 | ... | ... | 69·13 |
| 1882 | ... | 2·12 | 0·81 | 0·78 | 5·08 | 9·16 | 10·56 | 7·04 | 3·64 | 6·69 | 3·35 | ... | 49·23 |
| 1883 | 0·11 | 0·72 | 4·24 | 4·09 | 6·84 | 12·08 | 21·84 | 14·01 | 1·66 | 0·70 | ... | 1·18 | 67·47 |
| Mean | 0·30 | 0·84 | 1·27 | 2·59 | 4·99 | 10·04 | 12·42 | 12·33 | 7·90 | 4·92 | 0·58 | 0·17 | 58·35 |
| 1884 | 0·08 | 0·35 | 0·02 | 2·26 | 4·94 | 4·38 | 7·16 | 8·55 | 12·50 | 1·96 | ... | ... | 42·20 |
| 1885 | ... | 0·80 | 0·06 | 0·89 | 1·39 | 8·88 | 9·39 | 20·30 | 5·85 | 2·86 | 0·06 | 0·92 | 51·40 |
| 1886 | 0·40 | ... | 2·36 | 0·04 | 8·09 | 10·52 | 17·38 | 9·00 | 13·81 | 2·34 | 0·07 | ... | 64·01 |
| Mean | 0·29 | 0·78 | 1·22 | 2·42 | 4·97 | 9·79 | 12·30 | 12·36 | 8·22 | 4·64 | 0·52 | 0·18 | 57·69 |

No. 181. HOOGHLY.

Latitude N. 22° 55′. Longitude E. 88° 26′. Elevation 31 feet.

Administration : BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1854 | ... | 0·86 | 0·67 | ? | ? | 14·20 | 5·66 | 13·89 | 6·00 | ? | 1·26 | ... | ? |
| 1855 to 1864 | Not on record. | | | | | | | | | | | | |
| 1865 | ... | 3·00 | 5·50 | 5·50 | 12·50 | 12·50 | 7·50 | 9·50 | 8·00 | ... | ... | ... | 64·00 |
| 1866 | 3·50 | 2·50 | ... | ... | 6·10 | 19·40 | 20·00 | 12·70 | 3·00 | 6·85 | ... | ... | 74·05 |
| 1867 | 0·60 | 0·50 | 4·90 | 0·30 | 3·60 | 6·80 | 15·40 | 6·60 | 7·70 | 5·20 | 2·90 | ... | 54·50 |
| 1868 | ... | 1·00 | 3·00 | 20·70 | 4·20 | 15·40 | 7·75 | 40·50 | 21·40 | 2·00 | ... | ... | 115·95 |
| 1869 | ... | 3·00 | 5·60 | 0·40 | 2·30 | 14·60 | 15·40 | 3·22 | 9·76 | 3·53 | ... | ... | 57·81 |
| 1870 | 1·00 | ... | 0·30 | 3·71 | 2·92 | 7·18 | 16·90 | 12·60 | 9·25 | 2·76 | 1·40 | ... | 58·02 |
| 1871 | ... | ... | 3·03 | 3·10 | 9·54 | 15·68 | 13·82 | 19·24 | 7·70 | 4·60 | ... | ... | 76·69 |
| 1872 | 0·50 | 3·70 | ... | 2·18 | 2·40 | 7·99 | 9·08 | 7·62 | 8·38 | 8·16 | ... | 1·00 | 51·01 |
| 1873 | ... | ... | 0·90 | 2·39 | 4·57 | 4·48 | 15·36 | 6·72 | 3·77 | 0·60 | 0·10 | 0·75 | 39·64 |
| 1874 | 0·84 | 4·06 | 0·60 | 0·36 | 5·22 | 3·69 | 6·37 | 4·08 | 6·43 | 8·34 | 0·38 | ... | 40·37 |
| 1875 | 0·86 | ... | ... | 3·39 | 6·20 | 12·12 | 8·50 | 15·55 | 4·78 | 1·61 | ... | ... | 53·01 |
| 1876 | ... | ... | 2·33 | 2·14 | 3·20 | 7·97 | 7·61 | 9·42 | 4·35 | 3·62 | 0·18 | ... | 40·82 |
| 1877 | 1·30 | 2·23 | 2·10 | 1·19 | 4·99 | 9·59 | 10·54 | 14·36 | 4·68 | 3·97 | 0·02 | 1·40 | 56·37 |

HOOGHLY—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1878 | 0·09 | 0·47 | 0·65 | 3·84 | 15·53 | 9·65 | 14·92 | 17·88 | 18·12 | 6 75 | 1·03 | 0·37 | 89·30 |
| 1879 | ... | 0·36 | 0·45 | ... | 4·04 | 6·90 | 9·39 | 10·58 | 7·40 | 2·12 | ... | 0·19 | 41·43 |
| 1880 | 0·24 | 3·37 | 0·67 | 0·49 | 6·86 | 9·58 | 10·39 | 11·11 | 8·02 | 4·14 | ... | ... | 54·87 |
| 1881 | ... | 0·04 | 4·30 | 1·60 | 4·67 | 12·65 | 15·17 | 16·67 | 5·86 | 3 63 | ... | 0·16 | 64·75 |
| 1882 | 0·03 | 2·06 | 0·37 | 0·71 | 6·49 | 10·70 | 6·97 | 5·61 | 8·64 | 9·05 | 0·30 | ... | 50·93 |
| 1883 | 0·15 | 0·73 | 0·92 | 4·62 | 3·70 | 8·70 | 20·56 | 9·00 | 3 34 | 2·83 | 0·03 | 1·85 | 56·43 |
| Mean | 0·46 | 1·39 | 1·81 | 2·98 | 5·74 | 10·49 | 11·86 | 12·34 | 7·83 | 4·20 | 0·38 | 0·29 | 59·77 |
| 1884 | ... | 1·31 | 0·51 | 1·69 | 4·54 | 8·41 | 10·12 | 11·09 | 7·19 | 1·76 | ... | ... | 46·62 |
| 1885 | 0·04 | 4·12 | ... | 2·19 | 5·81 | 7·27 | 14·39 | 26·33 | 5·62 | 5·62 | 0·10 | 0·83 | 72·32 |
| 1886 | 0·35 | ... | 2·92 | ... | 8·88 | 8·02 | 15·42 | 10·53 | 11·35 | 1·77 | 0·30 | ... | 60·14 |
| Mean | 0·41 | 1·45 | 1·73 | 2·75 | 5·83 | 10·18 | 12·05 | 12·82 | 7·86 | 4·04 | 0·35 | 0·28 | 59·75 |

No. 182. HOWRAH.

Latitude N. 22° 35′. Longitude E. 88° 23′. Elevation 20 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ? | ? | ? | ? | ? | 23·20 | 14·80 | 25·30 | 21·10 | 0·60 | ... | ... | ? |
| 1869 | 0·50 | 4·60 | 9·80 | 0·30 | 3·98 | 18·48 | 11·62 | 5·94 | 10·47 | 5·61 | ... | ... | 71·30 |
| 1870 | 1·42 | ... | ... | 2·95 | 1·49 | 10·46 | 10·99 | 13·76 | 7·69 | 3·58 | 2·04 | ... | 54·38 |
| 1871 | ... | 0·27 | 6·00 | 6·31 | 9·83 | 23·80 | 17·01 | 12·54 | 11·04 | 6·43 | ... | ... | 93·23 |
| 1872 | ... | 2·28 | 0·28 | 2·79 | 1·71 | 9·99 | 4·92 | 9·82 | 8·26 | 7·51 | 0·02 | 0·11 | 47·69 |
| 1873 | 0·05 | ... | 1·20 | 1·81 | 3·58 | 4·41 | 19·31 | 8·83 | 6·63 | 0·74 | 0·23 | 0·78 | 47·57 |
| 1874 | 0·55 | 3·49 | 0·86 | 0·37 | 1·82 | 4·57 | 6·36 | 9·46 | 9·71 | 13·54 | 0·50 | ... | 51·23 |
| 1875 | 1·39 | 0·14 | ... | 3·66 | 5·93 | 10·89 | 14·61 | 13·06 | 7·24 | 2·97 | ... | ... | 59·89 |
| 1876 | ... | 1·37 | 4·18 | 0·29 | 3·23 | 8·60 | 17·33 | 18·31 | 7·85 | 4·46 | 0·33 | ... | 65·95 |
| 1877 | 2·52 | 2·73 | 1·02 | 4·20 | 5·14 | 4·32 | 14·40 | 17·61 | 6·61 | 3·03 | 0·20 | 0·02 | 61·80 |
| 1878 | 1·67 | 0·12 | 0·61 | 3·51 | 12·50 | 4·90 | 9·96 | 12·38 | 11·07 | 3·25 | 1·89 | 0·47 | 62·33 |
| 1879 | ... | 1·35 | ... | ... | 1 65 | 6·46 | 11·03 | 10·15 | 9·17 | 2·84 | ... | 0·70 | 43·35 |
| 1880 | 0·07 | 2·43 | 0·52 | 1·91 | 5·04 | 13·94 | 15·44 | 11·60 | 11·70 | 4·12 | 0·02 | 0·05 | 66·84 |
| 1881 | ... | ... | 3·23 | 2·07 | 7·99 | 15·12 | 13·39 | 17·23 | 5·38 | 2·44 | ... | 0·35 | 67·20 |
| 1882 | ... | 1·51 | 0·49 | 0·64 | 4·89 | 12·50 | 11·57 | 10·43 | 7·24 | 9·64 | 0·13 | ... | 59·04 |
| 1883 | 0·28 | 2·02 | 0·62 | 3·70 | 1·14 | 9·21 | 14·94 | 7·67 | 4·34 | 0·47 | ... | 2·45 | 46·84 |
| Mean | 0·56 | 1·49 | 1·92 | 2·30 | 4·66 | 11·30 | 12·98 | 12·76 | 9·09 | 4·45 | 0·34 | 0·31 | 62·16 |
| 1884 | 0·05 | 0·25 | 1·03 | 1·10 | 5·99 | 11·28 | 8·19 | 10·00 | 12·97 | 3·74 | 0·01 | ... | 54·61 |
| 1885 | 0·16 | 1·21 | 0·85 | 0·94 | 4·40 | 3·40 | 7·66 | 19 80 | 6·11 | 2·44 | 0·16 | 0·83 | 57 96 |
| 1886 | 0·94 | ... | 2·36 | ... | 8·64 | 9·06 | 14·18 | 8·41 | 12·42 | 4·64 | ... | ... | 60·65 |
| Mean | 0·53 | 1·32 | 1·84 | 2·03 | 4·94 | 11·29 | 12·51 | 12·75 | 9·32 | 4·32 | 0·29 | 0·30 | 61·44 |

No. 183. MIDNAPORE.

Latitude N. 22° 25′. Longitude E. 87° 21′. Elevation 120 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1854 | ? | 1·15 | 1·40 | ? | ? | 7·26 | 12·72 | 7·67 | 17·69 | ? | ? | ? | ? |
| 1855 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | ... | ... | ... | ... | 15·00 | 13·79 | 8·90 | 6·50 | 11·16 | 3·83 | ? | ... | 59·18? |
| 1862 | 4·31 | ... | 2·03 | 2·81 | 3·85 | 15·63 | 21·32 | 10·84 | 5·95 | 11·70 | ... | ... | 78·44 |
| 1863 | ... | ... | ... | ... | 3·98 | 13·00 | ? | ? | ? | ? | ? | ? | ? |
| 1864 to 1866 | Not on record. | | | | | | | | | | | | |
| 1867 | ? | ? | ? | 1·90 | ? | ? | ? | 16·90 | 15·50 | 4·80 | 2·70 | ... | ? |
| 1868 | ... | 0·80 | 0·10 | 5·60 | 3·40 | 22·80 | 5·40 | 19·90 | 13·20 | 1·30 | ... | ... | 72·50 |
| 1869 | 0·90 | 1·80 | 3·40 | 1·50 | 3·90 | 4·90 | 9·50 | 2·30 | 4·70 | 7·70 | ... | ... | 40·60 |
| 1870 | 0·90 | ... | 0·50 | 0·30 | 2·30 | 9·63 | 12·19 | 8·41 | 5·71 | 6·64 | 0·65 | ... | 47·23 |
| 1871 | ... | 0·15 | 7·34 | 3·34 | 9·46 | 8·44 | 12·39 | 14·95 | 12·34 | 3·61 | ... | ... | 72·02 |
| 1872 | ... | 0·12 | 0·82 | ... | 1·88 | 11·04 | 8·97 | 12·92 | 8·56 | 11·26 | 0·02 | ... | 55·59 |
| 1873 | 0·18 | ... | 0·72 | 1·95 | 9·21 | 7·11 | 13·97 | 6·60 | 4·92 | 0·11 | 0·01 | 0·04 | 44·82 |
| 1874 | 1·59 | 2·52 | 1·00 | 0·82 | 1·25 | 7·04 | 5·83 | 10·18 | 7·09 | 15·29 | 1·64 | ... | 54·25 |
| 1875 | 0·75 | 0·11 | ... | 2·03 | 8·91 | 11·09 | 12·65 | 8·31 | 6·35 | 3·06 | ... | 0 02 | 53·28 |
| 1876 | ... | ... | 2·52 | 1·73 | 2·78 | 12·72 | 16·49 | 13·34 | 8·41 | 9·47 | 0·16 | ... | 67·62 |
| 1877 | 3·16 | 3·16 | 1·43 | 2·82 | 4·47 | 10·21 | 4·32 | 10·80 | 2·99 | 2·59 | ... | 3·43 | 49·38 |
| 1878 | ... | 0·32 | 1·87 | 1·34 | 3·00 | 3·02 | 6·47 | 18·18 | 9·93 | 2·03 | 1·22 | 0·57 | 47·95 |
| 1879 | ... | 2·63 | ... | 0·24 | 3·99 | 3·23 | 11·29 | 6·34 | 9·35 | 1·68 | ... | 0·21 | 38·96 |
| 1880 | 0·08 | 2·50 | 0·47 | 1·17 | 6·63 | 10·86 | 8·36 | 17·25 | 8·04 | 3·90 | 0·05 | 0·02 | 59·33 |
| 1881 | 0·13 | ... | 4·95 | 0·95 | 4·77 | 19·24 | 20·64 | 12·18 | 2·93 | 4·15 | ... | 0·23 | 70·17 |
| 1882 | ... | 1·65 | ... | 3·13 | 6·71 | 8·95 | 14·56 | 9·91 | 9·19 | 6·77 | 0·56 | ... | 61·43 |
| 1883 | 3·13 | 0·52 | 1·96 | 3·22 | 1·10 | 7·36 | 9·32 | 16·72 | 4·28 | 0·45 | 0·01 | 1·04 | 49·11 |
| Mean | 0·80 | 0·87 | 1·53 | 1·74 | 5·08 | 10·37 | 11·33 | 11·51 | 8·41 | 5·28 | 0·39 | 0·29 | 57·60 |
| 1884 | 0·10 | 0·30 | 0·41 | 1·05 | 6·65 | 3·91 | 22·64 | 6·41 | 7·98 | 4·80 | ... | 0·01 | 54·26 |
| 1885 | 0·01 | 1·07 | 0·45 | 0·10 | 4·95 | 9·51 | 19·80 | 30·54 | 7·38 | 2·81 | ... | 1·15 | 77·77 |
| 1886 | 0·08 | ... | 0·94 | ... | 7·51 | 7·40 | 9·50 | 11·29 | 8·57 | 4·45 | 0·10 | ... | 49·84 |
| Mean | 0·70 | 0·82 | 1·40 | 1·57 | 5·26 | 9·91 | 12·15 | 12·11 | 8·36 | 5·11 | 0·34 | 1230 | 58·04 |

No. 184. TUMLOOK.

Latitude N. 22° 18′. Longitude E. 87° 58′. Elevation 15 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | ... | 1·04 | 11·84 | 6·68 | 7·24 | 10·61 | 14·69 | 12·19 | 7·13 | 9·32 | ... | ... | 80·74 |
| 1872 | 0·13 | 2·40 | ... | 2·22 | 3·55 | 9·51 | 4·02 | 6·46 | 9·85 | 8·06 | ... | ... | 46·20 |
| 1873 | 0·50 | ... | 0·41 | 2·28 | 3·53 | 3·52 | 22·26 | 6·79 | 8·02 | 0·15 | 0·04 | 1·14 | 48·64 |

TUMLOOK—*continued*.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1874 | 0·75 | 5·64 | 2·46 | 0·60 | 1·91 | 7·46 | 7·18 | 14·83 | 5·42 | 11·01 | 0·15 | ... | 57·41 |
| 1875 | 0·12 | ... | 0·15 | 3·95 | 8·18 | 10·53 | 11·76 | 11·01 | 10·11 | 0·76 | ... | ... | 56·57 |
| 1876 | ... | ... | 1·19 | ... | 2·73 | 26·66 | 16·93 | 16·86 | 8·30 | 7·88 | ... | ... | 80·55 |
| 1877 | 2·62 | 2·51 | 0·77 | 1·59 | 4·85 | 3·18 | 10·14 | 13·47 | 4·17 | 0·60 | ... | ... | 43·90 |
| 1878 | 1·05 | ... | 1·45 | 1·66 | 11·31 | 2·35 | 11·14 | 16·78 | 11·62 | 1·67 | 2·55 | 0·33 | 61·91 |
| 1879 | ... | ... | ... | ... | 2·55 | 4·05 | 5·57 | 10·39 | 8·22 | 3·07 | ... | 0·10 | 33·95 |
| 1880 | ... | 3·10 | 0·60 | 2·40 | 6·15 | 6·87 | 9·37 | 11·00 | 10·12 | 3·75 | ... | ... | 53·36 |
| 1881 | ... | ... | 5·45 | 1·25 | 7·44 | 14·40 | 14·25 | 25·80 | 9·45 | 2·70 | ... | ... | 80·74 |
| 1882 | ... | 0·08 | ... | ... | 4·00 | 8·80 | 9·35 | 11·35 | 9·10 | 14·10 | 0·65 | ... | 57·43 |
| 1883 | ... | 2·00 | 2·55 | 1·50 | 2·10 | 7·50 | 16·80 | 15·00 | 3·30 | 1·50 | ... | 2·00 | 54·25 |
| Mean | 0·40 | 1·29 | 2·07 | 1·86 | 5·04 | 8·88 | 11·80 | 13·23 | 8·06 | 4·97 | 0·26 | 0·27 | 58·13 |
| 1884 | ... | 0·50 | ... | 2·80 | 4·70 | 10·00 | 11·60 | 9·00 | 8·50 | 4·40 | ... | ... | 51·50 |
| 1885 | ... | 2·60 | 0·50 | ... | 1·90 | 12·00 | 6·50 | 37·05 | 9·70 | 1·60 | ... | 0·80 | 72·65 |
| 1886 | 0·50 | ... | 2·60 | ... | 7·30 | 10·50 | 11·60 | 7·60 | 11·10 | 2·70 | ... | 0·30 | 54·20 |
| Mean | 0·35 | 1·24 | 1·87 | 1·68 | 4·97 | 9·25 | 11·45 | 14·10 | 8·38 | 4·58 | 0·21 | 0·29 | 58·37 |

No. 185. BERHAMPORE.

Latitude N. 24° 6′. Longitude E. 88° 17′. Elevation 66 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | ? | ? | ? | ? | 5·72 | 5·70 | 2·80 | 8·15 | 7·80 | 6·90 | ... | 0·40 | ? |
| 1849 | 2·15 | 2·35 | 0·07 | 0·30 | 2·85 | 4·75 | 8·35 | 3·65 | 6·60 | 3·17 | 0·30 | 0·75 | 35·29 |
| 1850 | ... | 2·60 | 1·50 | 6·35 | 1·10 | 10·72 | 8·94 | 14·53 | 10·50 | 9·67 | ... | ... | 65·91 |
| 1851 | ... | 1·15 | ... | 2·58 | 2·00 | 4·00 | 11·90 | 7·75 | 3·60 | 7·10 | ... | ... | 40·08 |
| 1852 | 0·40 | ... | 3·70 | 1·70 | 11·01 | 14·26 | 8·97 | 6·71 | 11·56 | 2·44 | ... | ... | 60·75 |
| 1853 | ? | ... | ... | ... | ? | 20·12 | 7·70 | 7·01 | ? | ? | ? | ? | ? |
| 1854 | ... | ? | ? | ? | ? | ? | ? | ? | ? | ? | 0·25 | ... | ? |
| 1855. to 1858. | Not on record. | | | | | | | | | | | | |
| 1859 | ... | ? | 3·95 | 1·33 | 3·40 | 6·50 | 15·70 | 10·80 | 5·30 | 7·47 | ... | ... | 54·45 ? |
| 1860 | ... | 0·25 | 0·30 | 2·50 | 5·50 | 3·95 | 19·35 | 12·00 | 9·65 | 6·10 | ... | ... | 59·60 |
| 1861 | 0·60 | ... | ... | 1·60 | 7·35 | 14·20 | 13·70 | 9·00 | 8·10 | 17·05 | 0·90 | 0·50 | 73·00 |
| 1862 | 0·20 | ... | 0·90 | 4·40 | 3·70 | 6·05 | 9·00 | 7·35 | 8·40 | 15·05 | ... | ... | 55·05 |
| 1863 | ... | 0·65 | ... | 3·40 | 4·30 | 13·50 | 7·45 | 11·60 | 5·09 | 1·85 | 0·10 | ... | 47·94 |
| 1864 | ... | 0·30 | 0·90 | 0·60 | 2·45 | 11·85 | 8·61 | 9·80 | 10·50 | 6·38 | 1·67 | ... | 53·06 |
| 1865 | ... | 2·00 | 2·20 | 2·20 | 9·09 | 3·95 | 14·10 | 9·01 | 8·75 | ... | ... | ... | 51·30 |
| 1866 | 0·77 | 2·12 | 2·89 | 7·85 | 2·44 | 10 34 | 10·22 | 7·77 | 7·03 | 2·65 | ... | ... | 54·08 |
| 1867 | ? | 0·33 | 0·25 | 0·29 | 2·98 | 5·74 | 10·88 | 8·03 | 10·84 | 2·88 | 2·59 | ... | 44·81 ? |
| 1868 | ... | 1·38 | 0·78 | 1·98 | 8·12 | 12·71 | 8·40 | 18·07 | 9·36 | 1·07 | ... | ... | 61·87 |
| 1869 | 0·70 | 0·16 | 3·28 | 0·35 | 4·47 | 21·74 | 9·59 | 7·26 | 13·10 | 5·76 | ... | ... | 66·41 |
| 1870 | ... | ... | 0·39 | 0·61 | 2·95 | 11·37 | 10·98 | 11·94 | 13·72 | 4·68 | ... | ... | 56·64 |
| 1871 | ... | 0·02 | 1·28 | 3·69 | 6·22 | 13·82 | 14·31 | 12·14 | 15·77 | 1·82 | ... | ... | 69·07 |

BERHAMPORE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | 0·04 | 2·81 | 0·14 | 0·63 | 3·30 | 13·66 | 9·00 | 9·48 | 14·37 | 12·19 | ... | ... | 65·62 |
| 1873 | 0·20 | 0·01 | 1·50 | 0·68 | 0·70 | 3·01 | 9·71 | 10·30 | 4·96 | 0·42 | 0·02 | ... | 31·51 |
| 1874 | 1·10 | 1·93 | 0·22 | 2·60 | 3·97 | 9·55 | 6·10 | 2·96 | 11·25 | 10·03 | ... | ... | 49·71 |
| 1875 | 2·24 | 0 51 | 0·20 | 1·67 | 4·25 | 14·65 | 5·20 | 17·50 | 6·56 | 1·82 | ... | ... | 54·60 |
| 1876 | ... | ... | 1·65 | 3·05 | 7·56 | 8·73 | 12·63 | 16·16 | 11·40 | 1·85 | ... | ... | 63·03 |
| 1877 | 3·24 | 1·30 | 0·44 | 3·08 | 1·92 | 5·68 | 13·36 | 22·52 | 9·51 | 1·90 | ... | 0·54 | 63·49 |
| 1878 | 0·29 | 0·44 | 0·28 | 1·42 | 5·23 | 12·02 | 12·87 | 13·07 | 19·00 | 1·38 | 2·71 | 0·21 | 68·92 |
| 1879 | ... | 1·84 | ... | ... | 5·41 | 10·76 | 13·87 | 10·45 | 13·40 | 6·47 | ... | 0·19 | 62·39 |
| 1880 | 0·68 | 5·43 | 0·87 | 2·01 | 5·55 | 5·84 | 11·90 | 17·87 | 10·91 | 9·42 | ... | ... | 70·48 |
| 1881 | ... | ... | 2·56 | 0·57 | 6·19 | 3·75 | 11·82 | 9·60 | 5·64 | 6·33 | ... | ... | 46·46 |
| 1882 | ... | 1·87 | 0·04 | 0·12 | 9·61 | 17·05 | 4·92 | 10·17 | 8·71 | 9·77 | 1·14 | ... | 63·40 |
| 1883 | 0·12 | 0·02 | 1·65 | 0·25 | 6·59 | 8·48 | 9·84 | 9·02 | 2·74 | 0·22 | ... | 1·08 | 40·01 |
| Mean | 0·44 | 1·02 | 1·06 | 1·93 | 4·86 | 9·95 | 10·39 | 10·70 | 9·47 | 5·46 | 0·31 | 0·12 | 55·71 |
| 1884 | ... | 0·13 | ... | 3·67 | 4·64 | 7·76 | 6·43 | 4·88 | 6·74 | 5·06 | ... | 0·13 | 39·44 |
| 1885 | 0·11 | 1·36 | 0·39 | 1·28 | 2·02 | 4·15 | 9·57 | 19·01 | 14·12 | 1·67 | ... | 0·58 | 54·26 |
| 1886 | ... | 0·15 | 1·89 | 0·83 | 5·33 | 7·90 | 11·93 | 11·82 | 17·30 | 3·69 | 0·08 | ... | 60·92 |
| Mean | 0·40 | 0·97 | 1·04 | 1·93 | 4·79 | 9·65 | 10·30 | 10·81 | 9·77 | 5·28 | 0·29 | 0·13 | 5·356 |

No. 186. KISHNAGHUR.

Latitude N. 23° 23′. Longitude E. 88° 33′. Elevation 46 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | ... | ... | ... | ... | 6·70 | 11·30 | 10·30 | 10·30 | 8·50 | 8·10 | ? | 2·00 | 57·20 ? |
| 1862 | ... | ... | 3·00 | ? | ? | ? | 8·20 | 4·90 | ? | ? | ... | ... | ? |
| 1863 | ... | ... | ... | 6·20 | 8·60 | ? | 10·20 | 11·10 | 8·20 | 1·70 | ... | ? | ? |
| 1864 | ... | ... | ... | ... | 6·90 | 12·70 | ? | 8·70 | 5·00 | 12·80 | ? | ... | ? |
| 1865 | ... | 2·80 | 1·80 | 3·10 | 22·60 | 12·00 | 7·00 | 5·50 | 11·40 | ... | ... | ... | 66·20 |
| 1866 | 4·60 | 2·00 | 0·10 | 3·60 | 1·50 | 17·00 | 7·00 | 2·80 | 5·60 | 3·90 | ... | ... | 48·10 |
| 1867 | ... | 0·40 | 0·50 | 1·50 | 3·70 | 7·30 | 9·75 | 8·80 | 14·35 | 8·10 | 3·10 | ... | 57·50 |
| 1868 | ... | 0·35 | 1·00 | 4·70 | 10·30 | 10·75 | 11·50 | 30·20 | 7·30 | 3·70 | ... | ... | 79·80 |
| 1869 | 1·50 | 3·39 | 0·60 | 0·60 | ? | ? | ? | 5·04 | 3·18 | 3·02 | ... | ... | ? |
| 1870 | 0·16 | ... | 0·02 | 3·15 | 3·13 | 8·29 | 10·27 | 9·98 | 4·81 | 3·73 | 0·09 | ... | 43·63 |
| 1871 | ... | 0·16 | 3·00 | 2·28 | 7·92 | 13·21 | 11·88 | 19·37 | 7·73 | 4·03 | ... | ... | 60·58 |
| 1872 | 0·08 | 1·75 | ... | 0·42 | 4·90 | 9·53 | 6·69 | 5·62 | 7·27 | 5·73 | 0·08 | ... | 42·07 |
| 1873 | ... | ... | 1·15 | 2·71 | 3·94 | 3·52 | 18·15 | 14·80 | 2·42 | 0·08 | 0·03 | ... | 46·80 |
| 1874 | 1·27 | 4·66 | 1·10 | 0·70 | 5·61 | 11·65 | 5·69 | 3·90 | 10·42 | 3·64 | 0·48 | ... | 49·12 |
| 1875 | 1·61 | 0·16 | 2·15 | 2·31 | 7·14 | 14·14 | 9·83 | 10·47 | 5·83 | 1·06 | ... | ... | 54·70 |
| 1876 | ... | 0·10 | 1·18 | 3·77 | 7·25 | 12·43 | 15·04 | 14·21 | 4·57 | 6·70 | 0·17 | ... | 65·42 |
| 1877 | 1·25 | 2·37 | 1·34 | 7·36 | 3·23 | 7·94 | 21·93 | 19·58 | 1·91 | 2·57 | 0·21 | 0·62 | 70·31 |
| 1878 | ... | 3·39 | 0·64 | 6·72 | 3·84 | 6·60 | 9·77 | 20·82 | 9·19 | 3·49 | 3·08 | 0·38 | 65·92 |
| 1879 | ... | 1·56 | 0·07 | 0·02 | 2·67 | 11·05 | 9·06 | 11·45 | 12·09 | 6·48 | ... | 0·18 | 54·63 |
| 1880 | 0·14 | 3·34 | 1·68 | 1·90 | 10·82 | 7·81 | 8·80 | 14·17 | 9·99 | 10·87 | ... | ... | 69·53 |

KISHNAGHUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1881 | ... | ... | 3·52 | 2·82 | 8·83 | 6·26 | 8·31 | 20·42 | 15·63 | 2·38 | ... | ... | 68·17 |
| 1882 | ... | 1·60 | ... | 3·77 | 5·58 | 9·62 | 4·65 | 7·61 | 3·74 | 8·54 | 1·82 | ... | 46·93 |
| 1883 | ... | 0·15 | 0·78 | 1·20 | 3·88 | 3·63 | 8·43 | 4·56 | 2·69 | 2·26 | ... | 0·22 | 27·80 |
| Mean | 0·46 | 1·14 | 1·03 | 2·67 | 6·62 | 9·84 | 10·12 | 11·10 | 7·36 | 4·68 | 0·43 | 0·15 | 55·60 |
| 1884 | ... | 1·12 | 0·83 | 3·91 | 4·26 | 7·86 | 7·20 | 2·87 | 8·27 | 2·06 | ... | ... | 38·38 |
| 1885 | ... | 0·70 | ... | 0·61 | 2·89 | 9·57 | 8·82 | 13·40 | 13·80 | 3·90 | ... | 0·59 | 54·28 |
| 1886 | ... | ... | 5·48 | 0·21 | 8·14 | 7·77 | 10·78 | 13·39 | 12·51 | 3·16 | 0·22 | ... | 61·66 |
| Mean | 0·41 | 1·08 | 1·15 | 2·54 | 6·43 | 9·65 | 9·97 | 10·96 | 7·86 | 4·48 | 0·39 | 0·16 | 55·08 |

No. 187. FURREEDPORE.

Latitude N. 23° 36′. Longitude E. 89° 53′. Elevation, 20 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1853 | ... | ... | ... | 1·20 | 2·50 | 7·10 | 18·20 | 10·00 | 12·10 | 2·30 | ... | ... | 53·40 |
| 1854 | ... | 1·00 | 1·30 | 8·20 | 6·70 | 23·30 | 17·40 | 11·30 | 5·40 | 8·90 | 3·20 | ... | 86·70 |
| 1855 to 1868 | Not on record. | | | | | | | | | | | | |
| 1869 | 1·20 | 0·40 | 3·00 | 6·30 | 4·50 | 11·50 | 13·70 | 6·50 | 7·20 | 5·50 | ... | ... | 59·80 |
| 1870 | ... | ... | 2·80 | 8·06 | 16·82 | 19·44 | 13·00 | 23·24 | 11·28 | 5·35 | 0·29 | ... | 100·28 |
| 1871 | ... | 0·51 | 4·22 | 5·22 | 12·92 | 29·45 | 11·90 | 13·59 | 10·17 | 5·45 | ... | ... | 93·43 |
| 1872 | ... | 0·68 | ... | 2·31 | 8·73 | 2·91 | 13·66 | 7·82 | 9·74 | 7·42 | ... | 0·08 | 53·35 |
| 1873 | ... | 1·40 | 0·43 | 8·10 | 5·20 | 5·14 | 7·85 | 11·53 | 10·90 | ... | 0·02 | ... | 50·57 |
| 1874 | 1·16 | 4·07 | 4·34 | 2·58 | 14·13 | 7·33 | 4·34 | 5·30 | 21·13 | 2·41 | 0·21 | ... | 67·00 |
| 1875 | 1·94 | 0·21 | 1·17 | 3·36 | 6·39 | 19·05 | 9·75 | 17·50 | 7 64 | 1·50 | ... | ... | 68·51 |
| 1876 | ... | 0·40 | 2·60 | 2·75 | 6·06 | 13·11 | 16·43 | 14·17 | 17·07 | 3·95 | 1·57 | ... | 78·11 |
| 1877 | 0·34 | 1·64 | 5·07 | 5·87 | 4·25 | 15·90 | 26·13 | 26·49 | 7·77 | 2·90 | ... | 0·36 | 96·72 |
| 1878 | ... | 1·34 | 2·41 | 7·96 | 8·49 | 4·15 | 15·64 | 10·69 | 8·49 | 5·09 | 2·69 | 0·32 | 67·27 |
| 1879 | .... | 1·31. | ... | 1·90 | 5·58 | 19·03 | 14·82 | 9·37 | 7·33 | 5·39 | ... | 0·17 | 64·90 |
| 1880 | 0·39 | 6·02 | 6·73 | 2·30 | 8·20 | 15·53 | 6·78 | 14·19 | 16·52 | 4·34 | 0·05 | 0·13 | 81·18 |
| 1881 | ... | ... | 4·91 | 2·67 | 8·74 | 17·29 | 10·61 | 10·76 | 8·42 | 2·87 | ... | ... | 66·27 |
| 1882 | 0·12 | 2·24 | 3·50 | 0·80 | 13·33. | 9·97 | 5·63 | 7·98 | 3·19 | 13·56 | 1·12 | ... | 61·44 |
| 1883 | 0·63 | 0·32 | 4·96 | 5·14 | 9·05 | 5·84 | 14 21 | 10·07 | 4·32 | 0·43 | ... | 1·33 | 56·30 |
| Mean | 0·34 | 1·27 | 2·79 | 4·40 | 8·33 | 13·30 | 12·94 | 12·38 | 9·92 | 4·55 | 0·54 | 0·14 | 70·90 |
| 1884 | ... | 1·59 | 1·44 | 5·24 | 7·69 | 13·46 | 8·55 | 8·79 | 7·88 | 3·32 | 0·35 | ... | 58·31 |
| 1885 | ... | 3 57 | 0·17 | 1·87 | 10·33 | 17·70 | 10·33 | 13·50 | 11·57 | 6·21 | ...e | 0·28 | 75·53 |
| 1886 | ... | ... | 2·39 | 0·19 | 15·70 | 7·55 | 13·92 | 13·33 | 12·61 | 2·34 | 0·30 | ... | 68·33 |
| Mean | 0·29 | 1·34 | 2·57 | 4·10 | 8·77 | 13·24 | 12·64 | 12·31 | 10·04 | 4·46 | 0·49 | 0·13 | 70·38 |

No. 188. JESSORE.

Latitude N. 23° 9′. Longitude E. 89° 13. Elevation 33 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1848 | ? | ? | ? | ? | 7·02 | 3·82 | 2·07 | 7·17 | 8·00 | 5·03 | ... | ... | ? |
| 1849 | 1·70 | 0·45 | 1·40 | 1·25 | 9·25 | 12·35 | 8·05 | 11·30 | 10·85 | 8·75 | 0·10 | 0·50 | 65·95 |
| 1850 | ... | ... | 4·00 | 2·50 | 4·20 | 12·15 | 5·45 | 9·70 | 16·00 | 7·25 | 5·40 | ... | 66·65 |
| 1851 | 0·40 | ... | ... | 3·85 | 0·50 | 8·60 | 9·90 | 4·40 | 5·40 | 7·15 | ... | ... | 40·20 |
| 1852 | ? | ... | ... | ? | 1·28 | ? | 18·20 | 0·28 | ? | ? | ? | ? | ? |
| 1853 | ? | ? | ? | ? | ? | 10·70 | 15·60 | 6·70 | 11·20 | ? | ... | ? | ? |
| 1854 | ... | 1·10 | 4·60 | ? | ? | 27·80 | 8·90 | 14·30 | 11·70 | ? | 6·50 | 0·05 | ? |
| 1855 to 1858 | Not on record | | | | | | | | | | | | |
| 1859 | ... | 0·20 | ? | 6·60 | 15·40 | 11·60 | 10·90 | 16·00 | 10·80 | 4·40 | ... | ? | ? |
| 1860 | ... | ... | 0·60 | 7·90 | 8·30 | 11·00 | 17·50 | ? | 5·90 | 0·60 | 0·70 | ... | ? |
| 1861 | 0·60 | ... | 0·20 | 1·20 | 14·90 | 22·70 | 22·80 | 10·30 | 12·80 | 11·30 | 3·20 | 0·40 | 100·40 |
| 1862 | 0·50 | ... | 1·60 | 8·20 | 14·60 | 18·70 | 11·20 | 11·70 | 7·50 | 19·20 | ... | 0·30 | 91·50 |
| 1863 | ... | 0·0 | ... | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1864 and 1865 | Not on record | | | | | | | | | | | | |
| 1866 | ? | ? | ? | ? | ? | 15·40 | 7·20 | 9·30 | 9·70 | 11·50 | ... | ... | ? |
| 1867 | 0·25 | 1·10 | 2·43 | 9·82 | 4·51 | 8·31 | 12·50 | 14·19 | 13·45 | 9·40 | 4·65 | ... | 80·61 |
| 1868 | 0·02 | 1·56 | 1·22 | 10·27 | 9·85 | 16·62 | 12·24 | 20·53 | 9·49 | 2·22 | ... | ... | 84·02 |
| 1869 | 0·89 | 1·65 | 3·39 | 2·85 | 7·47 | 15·17 | 11·53 | 4·72 | 8·28 | 2·48 | 0·16 | ... | 58·59 |
| 1870 | 0·16 | ... | 0·91 | 4·55 | 5·11 | 13·01 | 10·24 | 13·66 | 7·81 | 5·54 | 0·08 | ... | 61·07 |
| 1871 | ... | 0·31 | 5·84 | 3·26 | 9·58 | 23·09 | 13·47 | 16·09 | 5·25 | 6·11 | ... | ... | 83·00 |
| 1872 | 0·09 | 2·41 | 0·19 | 10 13 | 6·57 | 12·32 | 9·59 | 8·74 | 12·56 | 6·67 | ... | 0·14 | 69·41 |
| 1873 | 0·16 | 0·04 | 0·65 | 2·84 | 3·43 | 8·21 | 9·85 | 14·09 | 4·57 | 0·61 | 0·06 | 0·74 | 45·25 |
| 1874 | 2·22 | 2·35 | 1·61 | 0·84 | 5·88 | 10·45 | 3·42 | 10·46 | 8·83 | 6·82 | 0·09 | ... | 52·97 |
| 1875 | 2·66 | 0·12 | 0·66 | 2·71 | 5·42 | 20·35 | 10·25 | 14·44 | 6·49 | 0·72 | ... | ... | 63·82 |
| 1876 | .... | 0·38 | 2·84 | 5·26 | 12·89 | 10·36 | 17·96 | 14·69 | 6·36 | 4·33 | 1·84 | ... | 76·91 |
| 1877 | 0·90 | 1·93 | 2·51 | 4 11 | 7·87 | 7·19 | 10·85 | 20·04 | 7·79 | 4·95 | ... | ... | 68·14 |
| 1878 | 0·57 | 0·76 | 1·47 | 11·36 | 9·23 | 5·16 | 11·15 | 15·33 | 11·22 | 3·50 | 1·13 | 0·44 | 71·32 |
| 1879 | ... | 0·32 | 0·17 | 1·07 | 3·84 | 12·41 | 15·11 | 8·62 | 10·63 | 4·10 | ... | 0·27 | 56·54 |
| 1880 | 0·72 | 2·40 | 1·86 | 2·55 | 8·33 | 20·55 | 15·74 | 10·28 | 6·40 | 6·15 | 0·06 | ... | 75·04 |
| 1881 | 0·33 | ... | 6·41 | 2·46 | 8·54 | 12·91 | 8·96 | 9·90 | 10·94 | 1·68 | ... | 0·19 | 62·32 |
| 1882 | 0·04 | 2·65 | 3·52 | 1·93 | 10·89 | 14·56 | 7·08 | 10·66 | 4·10 | 7·95 | 1·83 | ... | 65·21 |
| 1883 | 0·45 | 0·59 | 2·09 | 5·53 | 3·66 | 6·90 | 14·16 | 7·81 | 5·73 | 1·27 | ... | 2·35 | 50·54 |
| Mean | 0·49 | 0·76 | 1·93 | 4·71 | 7·56 | 13·30 | 11·44 | 11·62 | 8·92 | 5·76 | 0·92 | 0·21 | 67·62 |
| 1884 | ... | 3·57 | 2·61 | 6·40 | 7·03 | 18·68 | 8·44 | 5·97 | 11·33 | 5·34 | 0·12 | ... | 69·49 |
| 1885 | ... | 1·76 | 3·12 | 3·50 | 6·40 | 12·70 | 16·05 | 17·11 | 12·07 | 2·18 | 0·15 | 0·48 | 75·52 |
| 1886 | 0·10 | ... | 4·99 | 0·73 | 8·21 | 8·87 | 15·86 | 17·74 | 13·87 | 5·03 | 0·19 | .... | 75·59 |
| Mean | 0·44 | 0·87 | 2·10 | 4·58 | 7·52 | 13·31 | 11·63 | 11·81 | 9·26 | 5·59 | 0·85 | 0·20 | 68·16 |

No. 189. BUSSEERHAT.

Latitude N. 22° 40′. Longitude E. 88° 54′. Elevation 20 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1870 | ? | ? | ? | ? | ? | 5·40 | 8·85 | 12·62 | 6·03 | 2·80 | 0·60 | ... | ? |
| 1871 | ... | 0·13 | 5·76 | 4·73 | 7·95 | 22·14 | 11·34 | 10·60 | 9·97 | 2·61 | ... | ... | 75·23 |
| 1872 | ... | 3·02 | ... | 2·79 | 2·79 | 9·98 | 11·91 | 11·65 | 9·71 | 7·09 | ... | 0·18 | 59·12 |
| 1873 | ... | ... | 0·65 | 0·70 | 3·40 | 7·49 | 15·93 | 8·79 | 5·95 | 0·48 | 0·23 | ... | 43·62 |
| 1874 | 0·70 | 1·49 | 0·62 | 1·35 | 3·18 | 4·02 | 9·17 | 10·10 | 3·67 | 8·15 | 1·58 | ... | 44·03 |
| 1875 | 1·36 | 0·50 | 1·39 | 2·80 | 5·79 | 14·12 | 10·49 | 11·89 | 6·06 | 1·58 | ... | ... | 56·28 |
| 1876 | ... | ... | 5·18 | ... | 5·79 | 9·01 | 19·67 | 11·79 | 12·83 | 3·88 | 1·28 | ... | 69·43 |
| 1877 | 2·59 | 1·56 | 1·43 | 1·62 | 5·77 | 10·26 | 10·98 | 15·19 | 8·79 | 1·76 | 0·24 | ... | 60·19 |
| 1878 | 0·82 | ... | 1·14 | 4·00 | 11·89 | 4·26 | 17·11 | 14·34 | 8·50 | 3·57 | 0·82 | 0·03 | 66·48 |
| 1879 | ... | 0·09 | 0·32 | ... | 5·03 | 9·38 | 12·33 | 8·82 | 6·52 | 3·45 | ... | 0·41 | 46·35 |
| 1880 | ... | 1·63 | 1·41 | 1·49 | 5·09 | 12·08 | 10·84 | 16·99 | 9·57 | 8·77 | ... | ... | 67·87 |
| 1881 | ... | ... | 3·38 | 1·07 | 14·84 | 11·23 | 11·21 | 15·15 | 11·44 | 3·98 | ... | 0·23 | 72·53 |
| 1882 | 0·12 | 1·89 | 2·11 | 1·12 | 8·94 | 13·94 | 7·06 | 14·92 | 10·50 | 13·54 | 1·34 | ... | 75·48 |
| 1883 | 0·08 | 1·97 | 0·32 | 3·98 | 3·08 | 13·85 | 23 08 | 11·13 | 5·14 | 0·30 | ... | 2·75 | 65·68 |
| Mean | 0·46 | 0·94 | 1·82 | 1·97 | 6·43 | 10·51 | 12·86 | 12·43 | 8·19 | 4·43 | 0·44 | 0·26 | 60·74 |
| 1884 | 0·01 | 0·87 | 3·94 | 2·38 | 6·65 | 13·03 | 9·41 | 14·41 | 16·72 | 4·25 | 0·02 | ... | 71·69 |
| 1885 | ... | 4·24 | 0·60 | 2·74 | 6·99 | 15·47 | 9·66 | 21·27 | 4·53 | 1 51 | ... | 0·52 | 67·53 |
| 1886 | 0·49 | ... | 6·12 | 1·63 | 11·54 | 7·64 | 15·50 | 14·06 | 15·78 | 5·88 | 0·32 | 0·05 | 79·01 |
| Mean | 0·40 | 1·09 | 2·15 | 2·03 | 6·80 | 10·78 | 12·62 | 13·16 | 8·92 | 4·33 | 0·38 | 0·25 | 62·91 |

No. 190. KHOOLNA.

Latitude N. 22° 49′. Longitude E. 89° 37′. Elevation 15 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1871 | ? | ? | 6·40 | 2·04 | 7·36 | 21·00 | 9·76 | 17·64 | 11·46 | 3·85 | ... | ... | 79·51 ? |
| 1872 | ... | ... | 1·20 | 3·58 | 6·20 | 9·55 | 11·93 | 6·86 | 9·40 | 5·80 | ... | 0·20 | 54·72 |
| 1873 | ... | 0·30 | 0 75 | 4·97 | 5·20 | 10·60 | 14·44 | 16·17 | 6·22 | 0·60 | 0·21 | 0·40 | 59·86 |
| 1874 | 1·80 | 5·12 | 0·64 | 1·54 | 3·83 | 9·30 | 8·50 | 7·35 | 9·75 | 7·37 | 0·40 | ... | 55·60 |
| 1875 | 2·60 | ... | 0·40 | 2·30 | 4·65 | 18·05 | 12·17 | 15·08 | 4·90 | 0·70 | ... | ... | 60·85 |
| 1876 | ... | 1·11 | 3·40 | 2·63 | 10·63 | 17·90 | 23·56 | 12·67 | 9·60 | 3·31 | 1·03 | ... | 85·84 |
| 1877 | 1·45 | 2·11 | 3·17 | 8·05 | 6·75 | 8·14 | 11·29 | 16·87 | 10·61 | 4·89 | 0·29 | ... | 73·62 |
| 1878 | 0·98 | 0·06 | 0·55 | 6·16 | 10·15 | 5·64 | 14·04 | 13·87 | 7·73 | 4·26 | 1·32 | 0·40 | 65·16 |
| 1879 | ... | ... | ... | ?.. | 2·22 | 11·12 | 15·34 | 6·96 | 9·27 | 11·28 | ... | 0·72 | 56·91 |
| 1880 | 0·60 | 1·67 | 1·61 | 3·17 | 4·46 | 12·79 | 11·18 | 11·87 | 13·34 | 4·58 | 0·73 | ... | 66·00 |
| 1881 | ... | ... | 1·82 | 6·88 | 10·16 | 7·62 | 9·63 | 16·00 | 10·96 | 3·30 | ... | 0·25 | 66·62 |
| 1882 | 0·70 | 3·92 | ... | 0·35 | 5·49 | 16·00 | 4·90 | 16·14 | 7·08 | 8·63 | 2·61 | ... | 65·82 |
| 1883 | 0·08 | 0·84 | 2·79 | 3·60 | 2·16 | 12·26 | 9·78 | 6·91 | 7·85 | 0·13 | ... | 3·35 | 49·75 |
| Mean | 0·68 | 1·26 | 1·75 | 3·48 | 6·10 | 12·31 | 12·04 | 12·65 | 9·09 | 4·52 | 0·51 | 0·41 | 64·80 |

KHOOLNA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | ... | 1·46 | 1·90 | 4·81 | 8·17 | 22·46 | 11·53 | 8·57 | 16·82 | 3·75 | 0·50 | ... | 79·97 |
| 1885 | ... | 2·81 | 1·21 | 2·77 | 6·19 | 12·40 | 11·62 | 16·18 | 12·52 | 3·71 | 0·14 | 0·41 | 69·96 |
| 1886 | 0·15 | ... | 5·22 | 0·72 | 10·25 | 12·57 | 8·21 | 10·63 | 10·25 | 1·77 | ... | ... | 59·77. |
| Mean | 0·56 | 1·29 | 1·94 | 3·35 | 6·49 | 12·97 | 11·74 | 12·49 | 9·86 | 4·25 | 0·45 | 0·36 | 65·75 |

No. 191. BURRISAL.

Latitude N. 22° 42′. Longitude E. 90 25′. Elevation 18 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1852 | ... | ... | 2·05 | 2·15 | 10·67 | 17·13 | 36·85 | 10·27 | 10·20 | 3·80 | ... | ... | 93·12 |
| 1853 | 0·50 | ... | ... | 0·70 | 2·10 | ? | 14·62 | 7·85 | 21·75 | ? | ... | ... | ? |
| 1854 | ... | 0·40 | 1·65 | 17·05 | 11·40 | 29·40 | ? | 19·75 | 5·25 | 2·60 | 2·80 | ... | ? |
| 1855 to 1867 | Not on record. | | | | | | | | | | | | |
| 1868 | ? | ? | ? | ? | ? | 10·10 | 16·00 | 22·60 | 13·10 | 1·70 | ? | ? | ? |
| 1869 | 0·80 | 2·70 | 1·20 | 2·10 | 2·90 | 17·50 | 13·70 | 12·20 | 7·40 | 3·20 | ... | ... | 63·70 |
| 1870 | ... | ... | 1·04 | 3·19 | 9·26 | 11·91 | 12·32 | 13·49 | 8·78 | 5·63 | 1·18 | ... | 66·80 |
| 1871 | ... | 0·03 | 4·08 | 2·93 | 10·17 | 31·72 | 16·62 | 10·91 | 10·46 | 9·32 | ... | ... | 96·24 |
| 1872 | 0·37 | 0·96 | 0·86 | 5·26 | 10·41 | 15·96 | 14·43 | 11·37 | 17·41 | 5·44 | 0·11 | 0·56 | 83·14 |
| 1873 | 0·59 | ... | 1·12 | 2·82 | 5·28 | 7·67 | 16·42 | 17·29 | 7·86 | 1·96 | 0·30 | 0·80 | 62·11 |
| 1874 | 1·01 | 3·67 | 0·35 | 1·02 | 4·19 | 15·65 | 17·21 | 4·10 | 11·05 | 9·61 | 0·18 | ... | 68·04 |
| 1875 | 3·46 | ... | 0·58 | 2·71 | 4·26 | 14·76 | 23·38 | 8·22 | 9·44 | 1·21 | ... | ... | 68·02 |
| 1876 | ... | 1·79 | 4·41 | 2·32 | 7·54 | 11·27 | 20·92 | 15·27 | 7·13 | 2·34 | 5·36 | ... | 78·35 |
| 1877 | 1·20 | 2·85 | 4·32 | 13·66 | 7·86 | 14·98 | 19·00 | 11·43 | 11·36 | 0·90 | 0·45 | ... | 88·01 |
| 1878 | 0·63 | 0·18 | 0·21 | 3·49 | 7·26 | 9·66 | 16·96 | 14·73 | 8·15 | 10·60 | 1·74 | 0·06 | 73·67 |
| 1879 | ... | ... | ... | ... | 2·87 | 13·76 | 14·19 | 12·53 | 9·90 | 2·03 | ... | 0·35 | 55·63 |
| 1880 | 0·65 | 1·13 | 2·95 | 1·91 | 7·79 | 19·46 | 9·69 | 17·08 | 17·29 | 5·47 | 0·30 | 0·44 | 84·16 |
| 1881 | 0·27 | ... | 6·09 | 3·70 | 10·07 | 34·71 | 15·16 | 14·30 | 13·01 | 1·75 | 0·10 | 0·10 | 99·26 |
| 1882 | 0·97 | 2·28 | 0·24 | 2·10 | 8·74 | 21·71 | 9·91 | 17·63 | 12·21 | 9·06 | 1·98 | .... | 86·83 |
| 1883 | ... | 1·70 | 6·23 | 4·50 | 9·25 | 13·11 | 12·93 | 9·27 | 7·44 | 3·46 | ... | 3·28 | 71·17 |
| Mean | 0·58 | 0·98 | 2·08 | 3·98 | 7·33 | 17·25 | 16·68 | 13·17 | 11·06 | 4·43 | 0·81 | 0·31 | 78·68 |
| 1884 | ... | 0·94 | 4·99 | 1·64 | 12·79 | 21·30 | 14·07 | 4·67 | 26·55 | 6·94 | 3·71 | ... | 97·60 |
| 1885 | ... | 1·78 | 2·07 | 2·21 | 7·64 | 19·08 | 18·59 | 18·86 | 12·75 | 4·82 | 1·98 | 0·20 | 89·98 |
| 1886 | 0·45 | ... | 5·16 | 1·77 | 10·14 | 13·38 | 16·43 | 13·50 | 7·67 | 3·01 | ... | ... | 71·51 |
| Mean | 0·52 | 0·97 | 2·36 | 3·68 | 7·74 | 17·34 | 16·64 | 13·06 | 11·69 | 4·52 | 0·96 | 0·27 | 79·75 |

No. 192 A. CALCUTTA.

Latitude N. 22° 33′. Longitude E. 88° 21′. Elevation 18 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1829 | 0·32 | ... | ... | 1·40 | 3·59 | 18·43 | 9·29 | 10·21 | 8·89 | 7·63 | 0·18 | ... | 59·94 |
| 1830 | ... | ... | 1·72 | 5·54 | 12·71 | 11·21 | 10·58 | 10·73 | 5·98 | 4·81 | ... | ... | 63·28 |
| 1831 | ... | 1·60 | 0·58 | 5·30 | 2·56 | 19·06 | 7·07 | 10·37 | 5·28 | 5·08 | ... | ... | 56·90 |
| 1832 | ... | 1·65 | 3·10 | 2·36 | 3·45 | 4·26 | 4·97 | 16·44 | 4·88 | 8·15 | 1·46 | ... | 50·72 |
| 1833 | ·0·05 | 0·48 | ... | 3·57 | 12·86 | 3·04 | 13·04 | 12·63 | 8·19 | 3·68 | ... | 3·02 | 60·56 |
| 1834 | ... | 0·46 | 1·64 | 2·25 | 4·12 | 15·90 | 6·79 | 16·29 | 6·76 | 14·52 | ... | ... | 68·73 |
| 1835 | ... | ... | 1·46 | 1·84 | 16·20 | 13·92 | 19·66 | 13·26 | 9·64 | 6·18 | 3·34 | ... | 85·50 |
| 1836 | ... | 2·16 | 0·25 | ? | 2·35 | 5·19 | 11·94 | 10·00 | 13·61 | ... | 0·16 | ... | ? |
| 1837 | ... | 0·96 | 0·22 | 0·98 | 3·07 | 5·73 | 7·93 | 10 12 | 9·82 | 4·68 | 0·03 | 0·07 | 43·61 |
| 1838 | ... | 0·12 | 0·36 | 1·43 | 2·13 | 11·76 | 10·43 | 11·08 | 8·16 | 7·52 | ... | ... | 52·99 |
| 1839 | 1·34 | 0·23 | 0 31 | 1·31 | 7·84 | 9·12 | 14·77 | 9·45 | 18·95 | 0·59 | 1·06 | ... | 64·97 |
| 1840 | ... | ... | 0·44 | 0·80 | 8·05 | 13·05 | 9·01 | 21·31 | 4·94 | 1·81 | ... | ... | 59·41 |
| 1841 | 0·85 | 0·24 | 0·76 | 3·26 | 5·31 | 7·03 | 14·09 | 13·96 | 11·59 | 3·16 | ... | ... | 60·25 |
| 1842 | ... | ... | 3·76 | 3·73 | 1·82 | 26·24 | 9·61 | 21·97 | 4·08 | 3·96 | 0·19 | 0·76 | 76·12 |
| 1843 | 1·67 | 0·64 | 1·20 | 2·42 | 5·33 | 8·64 | 10·18 | 20·05 | 11·19 | 2·16 | ... | 0 86 | 64·34 |
| 1844 | 0·22 | 0·08 | 0·22 | 3·13 | 7·44 | 12 13 | 13·72 | 26·91 | 5·02 | 4·99 | ... | ... | 73·86 |
| 1845 | 1·10 | 0·64 | 0·17 | 7·30 | 1·42 | 10·66 | 12·80 | 15·36 | 4·80 | 5·86 | ... | 0·81 | 60·92 |
| 1846 | 0·82 | 1·80 | 2·30 | 0·57 | 2·49 | 12·14 | 20·07 | 13·26 | 9·97 | 10·76 | 0·74 | 1·52 | 76·44 |
| 1847 | ... | ... | ... | 2·33 | 4·79 | 12·01 | 15·09 | 15·09 | 10·95 | 5·86 | 5·59 | 0·05 | 72·36 |
| 1848 | ... | ... | 0·41 | 1·31 | 6·22 | 13·52 | 17·50 | 9·22 | 4·74 | 5·41 | 0·20 | 0·16 | 58·69 |
| 1849 | 2·41 | 1·67 | 2·16 | 0·32 | 7·44 | 14·40 | 12·24 | 10·11 | 14·71 | 4·03 | ... | 0·99 | 70·51 |
| 1850 | ... | 2·00 | 1·52 | 1·28 | 3·30 | 11·99 | 15·34 | 14·88 | 20·59 | 3·61 | 1·77 | ... | 76·28 |
| 1851 | 0·07 | 2·41 | 1·05 | 3·75 | 0·08 | 8·39 | 12·89 | 10·78 | 8·49 | 16 25 | ... | ... | 64·16 |
| 1852 | 1·58 | ... | 6 08 | 1·84 | 11·89 | 8·59 | 17·98 | 9·95 | 20·41 | 2·59 | ... | 0·50 | 81·41 |
| 1853 | 0·10 | ... | ... | 1·00 | 2·42 | 8·27 | 12·76 | 13·44 | 9·15 | 4·94 | ... | ... | 52·08 |
| 1854 | ... | 1·01 | 1·28 | 7·25 | 3·75 | 16·82 | 10·60 | 11·59 | 9·26 | 4·01 | 0·90 | ... | 66·47 |
| 1855 | 0·46 | 1·11 | 0·14 | 3·82 | 5·97 | 5·84 | 19·18 | 11·07 | 19·39 | 3·38 | ... | ... | 70·36 |
| 1856 | 1·06 | ... | 2·23 | 0·62 | 8·18 | 12·67 | 10·94 | 10·30 | 9 02 | 9·21 | ... | ... | 64·23 |
| 1857 | ... | ... | 0·96 | 1·80 | 9·33 | 10·30 | 12·98 | 18·70 | 13·30 | 1·60 | ... | ... | 68·97 |
| 1858 | 0·07 | 0·54 | 0·22 | 0·97 | 3·28 | 8·22 | 17·96 | 14·65 | 4·74 | 8·03 | ... | 1·08 | 59·76 |
| 1859 | ... | 0·66 | 4·23 | 1·29 | 3·18 | 12·48 | 9·09 | 21·22 | 11·55 | 4·96 | ... | ... | 68·66 |
| 1860 | ... | 0·09 | ... | 2·47 | 2·21 | 6·46 | 17·92 | 14·65 | 7·13 | 1·68 | ... | ... | 52·61 |
| 1861 | ·0·56 | ... | 0·88 | 0 31 | 9·07 | 26·44 | 10·93 | 16·12 | 12·48 | 7·75 | 4·39 | 0·26 | 89·19 |
| 1862 | 1·03 | ... | 1·69 | 2·53 | 3·80 | 13·63 | 13·31 | 12·03 | 10·86 | 14·40 | ... | 0·20 | 73·48 |
| 1863 | ... | 1·20 | ... | 2·43 | 4·20 | 12·93 | 11·22 | 14·10 | 10·33 | 3·48 | 1·26 | ... | 61·15 |
| 1864 | ... | 0·47 | 1·84 | 1·11 | 10·36 | 18·73 | 13·09 | 16·64 | 12·59 | 6·50 | 2·89 | ... | 84·22 |
| 1865 | 0·48 | 1·86 | 1·96 | 4·28 | 15·94 | 8·63 | 12·19 | 5·99 | 10·25 | ... | ... | ... | 61·58 |
| 1866 | 1·91 | 3·74 | ... | 1·81 | 2·56 | 7·02 | 13·42 | 11·48 | 15·97 | 7·83 | ... | ... | 65·74 |
| 1867 | 0·55 | 0·82 | 1·57 | 0·27 | 2·46 | 6·12 | 15·44 | 18·50 | 13·70 | 8·45 | 4·85 | ... | 72·73 |
| 1868 | 0·05 | 0·18 | 0·16 | 5·47 | 5·80 | 26·61 | 11·17 | 24·83 | 15·69 | 1·53 | ... | ... | 91·49 |
| 1869 | 0·90 | 2·72 | 4·59 | 0·20 | 3·25 | 18·84 | 14·54 | 6·02 | 7·91 | 3·03 | ... | ... | 62·00 |
| 1870 | 0·77 | ... | 0·03 | 4·03 | 0·92 | 16·09 | 10·90 | 12·92 | 9·01 | 3·93 | 1·66 | ... | 60·26 |
| 1871 | ... | 0·75 | 5·41 | 5·72 | 21·08 | 25·35 | 15·93 | 12·11 | 9·93 | 7·03 | ... | ... | 93·31 |
| 1872 | 0·22 | 2·82 | 0·21 | 1· 3 | 1·99 | 9·45 | 5·55 | 11·52 | 8·42 | 8 93 | 0·02 | 0·09 | 51·05 |
| 1873 | ... | ... | 1·18 | 1·84 | 3·78 | 4·30 | 14·76 | 10·23 | 5·82 | 2·40 | 0·14 | 0·82 | 45·27 |
| 1874 | 0·94 | 3·77 | 1·94 | 1·20 | 1·16 | 6·89 | 8·89 | 10·19 | 12·67 | 13·71 | 0·12 | ... | 61·48 |
| 1875 | 1·27 | ... | ... | 4·18 | 5 24 | 11·83 | 13·90 | 12·64 | 7·41 | 3·42 | ... | ... | 59·89 |
| 1876 | ... | 2·93 | 4·36 | 0·20 | 2·93 | 9·32 | 19·39 | 24·85 | 10·26 | 5·80 | 0·19 | ... | 80·23 |

CALCUTTA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | 2·90 | 2·26 | 0·75 | 0·88 | 4·90 | 4·33 | 14·90 | 16·47 | 8·98 | 2·40 | .... | 2·19 | 60·96 |
| 1878 | ... | 0·23 | 0·74 | 4·11 | 14·71 | 5·07 | 10·09 | 12·34 | 10·14 | 3·59 | 1·16 | 0·49 | 62·67 |
| 1879 | ... | 0·52 | ... | ... | 2·56 | 6·40 | 12·97 | 14·43 | 7·71 | 2·31 | ... | 0·41 | 47·31 |
| 1880 | 0·05 | 3·19 | 0·20 | 2·78 | 4·05 | 14·82 | 15·46 | 11·24 | 12·51 | 5·98 | ... | 0·23 | 70·51 |
| 1881 | ... | ... | 4·11 | 2·23 | 8·43 | 12·33 | 15·20 | 22·37 | 3·98 | 1·66 | ... | 0·51 | 70·82 |
| 1882 | 0·26 | 3·12 | 0·62 | 0·40 | 5·66 | 9·72 | 14·28 | 11·75 | 8·10 | 11·43 | 0·81 | ... | 66·15 |
| 1883 | 0·04 | 2·20 | 1·18 | 3·18 | 1·62 | 14·84 | 16·30 | 9·04 | 5·47 | 1·18 | ... | 2·73 | 57·78 |
| Mean | 0·44 | 0·97 | 1·31 | 2·37 | 5·48 | 11·77 | 12·96 | 13·94 | 9·92 | 5·42 | 0·60 | 0·32 | 65·50 |
| 1884 | ... | 0·33 | 0·06 | 1·39 | 7·08 | 11·23 | 11·25 | 11·21 | 17·37 | 4·15 | ... | ... | 64·07 |
| 1885 | 0·42 | 2·03 | 0·73 | 1·26 | 5·47 | 13·36 | 10·85 | 24·14 | 6·21 | 3·52 | 0·02 | 0·84 | 68·85 |
| 1886 | 1·09 | ... | 2·75 | ... | 9·58 | 11·16 | 18·05 | 3·75 | 12·85 | 4·70 | ... | ... | 63·93 |
| Mean | 0·44 | 0·96 | 1·31 | 2·30 | 5·58 | 11·77 | 12·98 | 13·90 | 10·03 | 5·35 | 0 57 | 0·32 | 65·51 |

No. 192 B. ALIPORE (*Observatory*).

Latitude N. 22° 32′. Longitude E. 88° 20′. Elevation 21 feet.

Administration: BENGAL.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | ? | ? | ? | 2·59 | 5·06 | 4·70 | 16·91 | 16·02 | 8·09 | 1·62 | 0·10 | 2·36 | ? |
| 1878 | ... | 0·54 | 0·77 | 3·18 | 13·11 | 4·87 | 9·70 | 11·75 | 10·92 | 2·07 | 1·13 | 0·51 | 58·55 |
| 1879 | ... | 0·21 | ... | ... | 3·22 | 7·01 | 11·52 | 12·43 | 7·00 | 1·71 | ... | 0·41 | 43·51 |
| 1880 | 0·05 | 2·91 | 0·54 | 1·91 | 4·87 | 14·07 | 13·69 | 13 26 | 12·96 | 5·03 | 0·02 | 0·15 | 69·46 |
| 1881 | ... | ... | 3 45 | 1·97 | 7·40 | 15 12 | 13·42 | 19·61 | 6·75 | 1·50 | ... | 0·36 | 69·58 |
| 1882 | 0·13 | 3·42 | 0·52 | 0·25 | 6·05 | 9·99 | 11·76 | 10·87 | 10·50 | 11·08 | 1·61 | ... | 66·18 |
| 1883 | 0·07 | 2·09 | 1·52 | 2·96 | 1·18 | 10·20 | 16·16 | 8·15 | 6·96 | 0·75 | ... | 2·54 | 52·58 |
| Mean | 0·04 | 1·53 | 1·13 | 1·84 | 5·84 | 9·42 | 13·31 | 13·16 | 9·03 | 3·39 | 0·41 | 0·90 | 60·00 |
| 1884 | 0·02 | 0·29 | 0·06 | 1·38 | 5·86 | 11·72 | 11·96 | 10·97 | 16·63 | 3·71 | 0·01 | ... | 62·61 |
| 1885 | 0·42 | 2·02 | 1·01 | 0·66 | 4·84 | 11·40 | 8·12 | 26·50 | 5·51 | 5 29 | 0·06 | 0·89 | 66·72 |
| 1886 | 1·28 | ... | 2 35 | ... | 7·93 | 11·52 | 15·35 | 8·93 | 13·93 | 3·91 | ... | ... | 65·20 |
| Mean | 0·22 | 1·27 | 1·13 | 1·49 | 5·95 | 10·06 | 12·86 | 13·85 | 9·93 | 3·67 | 0·29 | 0·72 | 61·44 |

No. 192 C. ALIPORE (*Jail*).

Latitude N. 22° 32′. Longitude E. 88° 20′. Elevation 20 feet.

Administration: BENGAL.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1870 | P | P | P | P | P | 12·72 | 10 63 | 14·59 | 9·23 | 4·33 | 1·67 | ... | P |
| 1871 | ... | 0·54 | 4·99 | 5·22 | 10·23 | 29·54 | 17·96 | 11·89 | 10·02 | 7·08 | ... | ... | 97·47 |
| 1872 | ... | 2·28 | 0·21 | 1·47 | 2·57 | 8·15 | 6·96 | 10·26 | 7·37 | 9·40 | ... | 0·12 | 48·79 |
| 1873 | ... | ... | 1·11 | 1·45 | 3·75 | 3·55 | 15·73 | 12·11 | 5·12 | 1·54 | 0·03 | 0·50 | 44·89 |
| 1874 | 0·95 | 4·13 | 1·86 | 0·32 | 1·84 | 5·10 | 8·38 | 11·12 | 13·82 | 13·02 | 0·09 | ... | 60·63 |
| 1875 | 1·00 | 0·23 | ... | 3·94 | 5·48 | 9·90 | 13·49 | 11·66 | 8·16 | 3·30 | ... | ... | 57·16 |
| 1876 | ... | 2·97 | 5·06 | 0 16 | 3·07 | 9·58 | 19·47 | 26·18 | 9·91 | 5·37 | 0·32 | ... | 82·09 |
| 1877 | 2·77 | 2·90 | 0·95 | 2·86 | 5·39 | 4·89 | 17·15 | 16·40 | 8·88 | 1·34 | ... | ... | 63·53 |
| 1878 | 2·78 | 0·77 | 0·82 | 3·03 | 14·09 | 4·40 | 10·92 | 11·58 | 12·93 | 2·28 | 1·23 | 0·51 | 65·34 |
| 1879 | ... | 0·28 | ... | ... | 3·07 | 7·52 | 12·21 | 12·54 | 6·22 | 2·41 | ... | 0·42 | 44·67 |
| 1880 | 0·11 | 2·81 | 0·56 | 2·59 | 5·13 | 14·74 | 14·21 | 13·84 | 13·59 | 5·73 | ... | 0·25 | 73·56 |
| 1881 | ... | 0·10 | 3·79 | 1·86 | 6·88 | 12·32 | 12·75 | 17·46 | 6·73 | 1·30 | ... | 0·30 | 63·49 |
| 1882 | 0·29 | 3·24 | ... | 0·28 | 5·57 | 8·49 | 10·50 | 9·51 | 10·36 | 6·65 | 2·02 | ... | 56·91 |
| 1883 | 0·10 | 2·07 | 1·29 | 3·13 | 1·16 | 9·49 | 16·27 | 7·41 | 5·35 | 0·77 | 0·01 | 3·34 | 50·39 |
| Mean | 0·62 | 1·72 | 1·59 | 2·02 | 5·25 | 10·03 | 13·33 | 13·33 | 9·12 | 4·61 | 0·38 | 0·39 | 62·39 |
| 1884 | ... | 0·28 | 0·05 | 1·06 | 5·33 | 12·77 | 12·27 | 9·75 | 18·85 | 3·58 | ... | ... | 63·94 |
| 1885 | 0·60 | 2·08 | 0·95 | 0·57 | 3·67 | 11·16 | 9·31 | 26·57 | 6·00 | 4·55 | A. | 0·80 | 66·26 |
| 1886 | 1·47 | ... | 2·49 | ... | 7·79 | 11·72 | 15·72 | 8·81 | 15·50 | 3·78 | ... | ... | 67·28 |
| Mean | 0·63 | 1·54 | 1·51 | 1·75 | 5·31 | 10·36 | 13·17 | 13·63 | 9·88 | 4·50 | 0·32 | 0·37 | 62·97 |

No. 193. SAUGOR ISLAND.

Latitude N. 21° 39′. Longitude E. 88° 5′. Elevation 6 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1867 | ... | ... | 0·80 | 1·35 | 3·90 | 23·05 | 26 30 | 28·31 | 24·47 | 13·71 | 2·15 | ... | 124·04 |
| 1868 | P | P | P | P | P | 27·40 | 11·86 | 16·07 | 21·50 | 4·12 | ... | ... | P |
| 1869 | 0·22 | 3·02 | 3·09 | ... | 3·16 | 5·81 | 12·67 | 7·57 | 10 67 | ·576 | ... | ... | 51·97 |
| 1870 | ... | ... | 0·14 | 1·62 | 5·92 | 3·66 | 12·65 | 16·03 | 14·49 | 12·42 | 2·58 | ... | 69·51 |
| 1871 | ... | 0·25 | 2·89 | 6·09 | 10·12 | 15·54 | 12·55 | 16·28 | 16·02 | 21·31 | ... | ... | 101 05 |
| 1872 | ... | 0·15 | 0·09 | 0·39 | 2·43 | 14·14 | 7·13 | 9·34 | 5·59 | 17 58 | 0·05 | 0·22 | 57·11 |
| 1873 | ... | ... | 1·83 | 1·52 | 3·11 | 2·20 | 11·60 | 8·94 | 7·33 | 4·66 | 1·09 | 0·26 | 42·54 |
| 1874 | 1·04 | 3·44 | 0·10 | 1·02 | 3·65 | 14·48 | 8·97 | 16·94 | 7·56 | 14·45 | 0·44 | ... | 72·09 |
| 1875 | 0·35 | ... | ... | 2·30 | 6·19 | 14·50 | 20·02 | 10·85 | 12·10 | 6·00 | ... | ... | 72·31 |
| 1876 | ... | ... | 0·66 | ... | 3·11 | 6·46 | 22·57 | 12·26 | 10·98 | 9·43 | 0·27 | ... | 65·74 |
| 1877 | 2·76 | 2·97 | 0·76 | 0·76 | 5·36 | 8·66 | 21·30 | 14·01 | 5·54 | 4·81 | ... | 0·06 | 66·99 |
| 1878 | 0·41 | 0·32 | 0·95 | 0·50 | 3·44 | 1·69 | 10·09 | 14·23 | 9·52 | 8·92 | 2·85 | 0·58 | 53·50 |

SAUGOR ISLAND—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1879 | ... | 0·32 | ... | ... | 1·66 | 7·04 | 9·23 | 12·82 | 8·67 | 5·38 | ... | 1·36 | 46·48 |
| 1880 | 0·12 | 1·07 | 0·45 | 2·82 | 4·84 | 18 81 | 14·17 | 23·81 | 19·95 | 13·45 | 1·46 | 0·26 | 101·21 |
| 1881 | ... | ... | 1·08 | 1·98 | 9·82 | 10·84 | 31·76 | 27·34 | 4·25 | 6·67 | ... | 0·35 | 94·09 |
| 1882 | ... | 0·54 | 4·87 | 0·59 | 5·42 | 7·29 | 12·30 | 22·63 | 13·68 | 12·13 | 1·83 | ... | 81·28 |
| 1883 | ... | 1·09 | 1·55 | 3·01 | 3·37 | 12·77 | 20·74 | 9·96 | 11·27 | 0·57 | ... | 2·32 | 66·65 |
| Mean | 0·31 | 0·82 | 1·20 | 1·50 | 4·72 | 11·43 | 15·64 | 15·73 | 11·98 | 9·49 | 0·75 | 0·32 | 73·9 |
| 1884 | 0·29 | 0·56 | ... | 1·36 | 5·14 | 14·39 | 23·01 | 7·71 | 17·39 | 12·88 | ... | ... | 82·73 |
| 1885 | ... | 7·78 | 0·14 | ... | 2·79 | 11·83 | 19·93 | 27·37 | 14·93 | 4·57 | 0·51 | 0·73 | 90·58 |
| 1886 | 0·21 | ... | 6·42 | ... | 3·55 | 9·37 | 13·24 | 8·56 | 20·47 | 8·95 | ... | 0·19 | 70·96 |
| Mean | 0·28 | 1·13 | 1·36 | 1·33 | 4·58 | 11·50 | 16·10 | 15·55 | 12·82 | 9·39 | 0·66 | 0·32 | 75·02 |

No. 194. MYMENSINGH.

Latitude N. 24°46′. Longitude E. 90°27′, Elevation 60 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1851 | ? | 3·25 | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1852 | ... | 1·30 | 10·70 | 3·51 | 14·33 | 21·55 | 24·95 | 16·55 | 14·30 | 2·70 | 0·40 | ... | 110·29 |
| 1853 | 0·50 | 0·10 | 0·10 | 0·90 | 5·90 | 22·60 | 12·50 | 10·10 | 28·70 | 2·00 | 0·30 | ... | 83·70 |
| 1854 | ... | 1·10 | ... | 12·50 | 4·50 | 33·60 | 11·50 | 27·40 | 7·40 | 9·10 | 4·50 | ... | 111·60 |
| 1855 to 1863 | Not on record. | | | | | | | | | | | | |
| 1864 | 0·40 | 2·60 | 1·70 | 4·80 | 18·20 | 28·40 | 22·80 | 17·00 | 15·20 | 7·00 | 1·20 | ... | 119·30 |
| 1865 | ... | 1·60 | 0·80 | 29·70 | 30·00 | 27·60 | 27·20 | 10·80 | 6·30 | ... | ... | ... | 134·00 |
| 1866 | ? | 1·70 | ... | 4·50 | 12·20 | 23·40 | 18·40 | 16·40 | 9·90 | 8·80 | ... | ... | 95·30 ? |
| 1867 | 0·90 | 0·60 | 3·40 | 1·80 | 2·30 | 22·30 | 32·00 | 16·77 | 14·25 | 7·70 | 8·00 | ... | 110·02 |
| 1868 | ... | 2·90 | 1·35 | 8·37 | 11·45 | 25·65 | 16·75 | 20·70 | 9·50 | 1·10 | ... | ... | 98·17 |
| 1869 | 0·55 | 0·30 | 2·00 | 12·40 | 17·80 | 18·70 | 15·20 | 7·60 | 19·20 | 5·80 | ... | ... | 99·55 |
| 1870 | ... | 0·05 | 0·16 | 1·32 | 6·38 | 16·18 | 16·25 | 14·42 | 18·11 | 9·03 | ... | ... | 81·90 |
| 1871 | ... | 0·75 | 1·56 | 3·98 | 15·77 | 30·84 | 17·53 | 16·20 | 16·11 | 8·35 | ... | ... | 111·09 |
| 1872 | ... | 0·86 | ... | 4·85 | 6·58 | 16·66 | 15·56 | 15·65 | 22·31 | 3·89 | ... | ... | 86·36 |
| 1873 | 0·10 | 0·10 | 0·85 | 3·70 | 3·23 | 21·82 | 10·42 | 16·88 | 4·02 | 0·27 | ... | 0·61 | 62·00 |
| 1874 | 1·14 | 3·84 | 2·77 | 6·33 | 8·58 | 15·43 | 10·60 | 8·26 | 12·99 | 3·49 | ... | ... | 73·43 |
| 1875 | 1·36 | 0·16 | 5·12 | 4·22 | 12·66 | 20·93 | 11·95 | 10·04 | 11·29 | 2·40 | ... | ... | 80·13 |
| 1876 | ... | 0·01 | 0·85 | 2·14 | 21·39 | 19·34 | 13·97 | 13·36 | 10·56 | 8·18 | 0·37 | ... | 90·17 |
| 1877 | 1·84 | 0·71 | 1·58 | 3·02 | 10·38 | 15·13 | 36·43 | 19·85 | 20·07 | 5·02 | 0·55 | 0·74 | 115·32 |
| 1878 | ... | 3·76 | 1·82 | 5·84 | 11·45 | 10·13 | 18·46 | 15·80 | 29·38 | 5·71 | 2·68 | 0·02 | 104·05 |
| 1879 | ... | 0·83 | ... | 2·20 | 5·34 | 22·39 | 18·99 | 13·04 | 8·32 | 9·42 | ... | 0·24 | 80·77 |
| 1880 | 0·95 | 4·04 | 3·07 | 2·86 | 7·61 | 23·03 | 16·11 | 19·25 | 16·04 | 8·16 | 0·18 | 0·86 | 102·16 |

MYMENSINGH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1881 | ... | 0·12 | 2·60 | 1·98 | 19·19 | 15·84 | 11·88 | 13·08 | 18·63 | 3·16 | 0·08 | ... | 86·56 |
| 1882 | ... | 0·92 | 3·98 | 2·49 | 14·63 | 17·83 | 6·43 | 13·48 | 8·06 | 14·66 | 1·12 | ... | 83·60 |
| 1883 | 0·48 | 0·24 | 0·33 | 4·78 | 10·07 | 9·50 | 11·13 | 11·45 | 7·83 | 0·84 | ... | 0·78 | 57·43 |
| Mean | 0·37 | 1·29 | 1·95 | 5·57 | 11·74 | 20·82 | 17·26 | 14·96 | 14·30 | 5·51 | 0·84 | 0·14 | 94·75 |
| 1884 | ... | 2·48 | 4·16 | 10·96 | 21·30 | 20·55 | 8·20 | 13·03 | 4·67 | 4·74 | 0·29 | ... | 90·38 |
| 1885 | 0·30 | 0·72 | 1·56 | 2·85 | 5·79 | 25·22 | 11·26 | 7·86 | 20·04 | 6·16 | ... | 0·03 | 81·79 |
| 1886 | ... | ... | 1·44 | 2·94 | 9·76 | 13·58 | 13·72 | 18·27 | 15·69 | 2·84 | 0·03 | ... | 78·27 |
| Mean | 0·34 | 1·26 | 2·00 | 5·57 | 11·80 | 20·70 | 16·55 | 14·74 | 14·20 | 5·40 | 0·76 | 0·13 | 93·45 |

No. 195. KISHORGANJ.

Latitude N. 24° 26′. Longitude E. 90° 49′. Elevation 70 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ? | ? | ? | ? | ? | ? | 14·19 | 15·36 | 19·57 | 5·53 | ... | ... | ? |
| 1871 | ... | 0·31 | 2·23 | 3·77 | 11·36 | 39·35 | 15·08 | 9·49 | 18·00 | 18·12 | ... | ... | 117·71 |
| 1872 | ... | 1·09 | 1·44 | 5·66 | 15·05 | 12·17 | 22·05 | 10·85 | 24·44 | 3·15 | ... | ... | 95·90 |
| 1873 | 0·20 | 0·16 | 0·60 | 3·99 | 5·72 | 16·97 | 13·89 | 15·30 | 8·14 | 2·46 | 0·51 | 3·15 | 71·09 |
| 1874 | 2·03 | 3·54 | 7·47 | 5·25 | 5·65 | 10·77 | 10·57 | 4·37 | 13·63 | 5·91 | 0·40 | ... | 69·59 |
| 1875 | 3·16 | 0·05 | 6·13 | 4·65 | 8·72 | 22·02 | 12·91 | 19·55 | 8·32 | 2·92 | ... | ... | 88·43 |
| 1876 | ... | 0·16 | 1·91 | 2·50 | 21·03 | 19·95 | 10·22 | 13·95 | 10·65 | 3·79 | 1·60 | ... | 85·76 |
| 1877 | 1·29 | 1·01 | 2·93 | 5·25 | 11·50 | 12·21 | 18·64 | 20·98 | 15·79 | 5·48 | ... | 0·05 | 95·13 |
| 1878 | 0·69 | 1·88 | 3·56 | 3·81 | 4·69 | 19·86 | 12·42 | 11·71 | 21·22 | 6·30 | 2·45 | 0·11 | 88·70 |
| 1879 | ... | 0·73 | ... | 3·78 | 9·19 | 25·23 | 13·47 | 9·64 | 17·61 | 5·23 | ... | 0·03 | 84·91 |
| 1880 | 0·36 | 3·36 | 4·10 | 4·51 | 8·17 | 24·59 | 18·29 | 14·50 | 7·54 | 6·18 | ... | 0·71 | 92·31 |
| 1881 | ... | ... | 1·98 | 2·74 | 10·71 | 16·53 | 11·82 | 11·92 | 16·34 | 3·30 | 0·65 | ... | 75·99 |
| 1882 | 0·89 | 0·91 | 8·90 | 3·69 | 13·02 | 23·24 | 3·87 | 12·36 | 5·20 | 5·30 | 0·75 | ... | 78·13 |
| 1883 | 0·07 | 0·04 | 0·42 | 8·64 | 15·96 | 7·89 | 16·34 | 18·78 | 2·38 | 3·62 | ... | 1·63 | 75·77 |
| Mean | 0·67 | 1·02 | 3·21 | 4·48 | 10·83 | 19·29 | 13·84 | 13·48 | 13·49 | 5·52 | 0·45 | 0·41 | 86·69 |
| 1884 | ... | 1·14 | 2·55 | 6·70 | 12·57 | 11·29 | 7·41 | 5·62 | 4·68 | 6·49 | 0·56 | ... | 59·01 |
| 1885 | ... | 0·32 | 1·52 | 5·80 | 6·13 | 23·68 | 8·82 | 5·70 | 23·59 | 4·91 | ... | 0·08 | 80·55 |
| 1886 | ... | ... | 2·25 | 4·09 | 8·46 | 9·92 | 15·84 | 28·39 | 11·99 | 2·52 | 0·07 | ... | 83·53 |
| Mean | 0·54 | 0·92 | 3·00 | 4·68 | 10·50 | 18·48 | 13·28 | 13·44 | 13·48 | 5·37 | 0·41 | 0·34 | 84·44 |

No. 196. ATIA.

Latitude N. 24° 11′. Longitude E. 89° 58′. Elevation 35 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ? | ? | ? | ? | ? | ? | ? | 22·61 | 13·83 | 11·00 | ... | ... | ? |
| 1871 | ... | 0·80 | 7·26 | 1·49 | 11·05 | 43·69 | 11·46 | 5·35 | 14·96 | 9·27 | ... | ... | 105·33 |
| 1872 | 0·02 | 1·22 | ... | 5·33 | 3·60 | 8·86 | 10·90 | 4·70 | 15·60 | 5·05 | .... | ... | 55·28 |
| 1873 | 0·24 | 0·01 | 0·41 | 3·34 | 4·62 | 6·16 | 14·86 | 9·12 | 5·04 | 0·36 | 0·05 | 0·20 | 44·41 |
| 1874 | 0·43 | 3·05 | 1·08 | 6·47 | 4·65 | 7·14 | 4·51 | 6·60 | 14·65 | 5·24 | 0·15 | ... | 53·97 |
| 1875 | 2·28 | 0·30 | 1·30 | 1·53 | 5·21 | 29·18 | 8·20 | 15·58 | 7·21 | 1·77 | ... | ... | 72·56 |
| 1876 | ... | 0·45 | 1·40 | 3·01 | 10·11 | 17·24 | 13·95 | 14·65 | 8·69 | 2·17 | 0·71 | ... | 72·38 |
| 1877 | 1·45 | 1·31 | 1·17 | 6·02 | 6·25 | 13·26 | 20·32 | 20·16 | 15·28 | 3·43 | ... | 0·05 | 88·70 |
| 1878 | ... | 1·48 | 0·35 | 4·43 | 7·13 | 8·00 | 10·05 | 13·91 | 18·10 | 1·21 | 1·18 | ... | 65 84 |
| 1879 | ... | 1·02 | ... | 0·95 | 2·40 | 11·52 | 11·10 | 13·61 | 5·70 | 5·08 | ... | 0·12 | 51·50 |
| 1880 | 0·27 | 5·24 | 1·20 | 3·99 | 7·42 | 14·44 | 10·81 | 13·96 | 6·51 | 6·20 | ... | 0·08 | 70·12 |
| 1881 | ... | 0·12 | 1·81 | 2·49 | 12·97 | 8·22 | 8·05 | 15·55 | 11·17 | 3·45 | ... | ... | 63·83 |
| 1882 | 0·11 | 0·87 | 1·66 | 2·01 | 7·26 | 10·45 | 5·67 | 8·74 | 6·10 | 17·51 | 1·95 | ... | 62·33 |
| 1883 | 0·22 | 0·08 | 0·54 | 5·54 | 9·82 | 8·87 | 17·47 | 10·11 | 2·69 | ... | ... | 1·20 | 56·54 |
| Mean | 0·39 | 1·23 | 1·40 | 3·58 | 7·11 | 14·39 | 11·33 | 12·48 | 10·40 | 5·12 | 0·29 | 0·12 | 67·84 |
| 1884 | ... | 1·44 | 0·63 | 2·78 | 10·17 | 3·35 | 7·28 | 5·02 | 4·92 | 2·80 | ... | ... | 38·39 |
| 1885 | 0·50 | 2·53 | 0·45 | 3·63 | 7·92 | 10·48 | 19·48 | 9·63 | 13·57 | 4·72 | 0·39 | 0·09 | 73·39 |
| 1886 | ... | ... | 1·23 | 3·62 | 5·96 | 7·66 | 9·31 | 18·78 | 10·36 | 4·96 | ... | ... | 61·88 |
| Mean | 0·34 | 1·25 | 1·28 | 3·54 | 7·28 | 13·03 | 11·46 | 12·24 | 10·26 | 4·95 | 0·26 | 0·10 | 65·99 |

No. 197. DACCA.

Latitude N. 23° 43′. Longitude E. 90° 27′. Elevation 15 feet.

Administration: BENGAL. Rainfall Province No. VIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1827 | ... | ... | 3·90 | 4·80 | 9·10 | 12·90 | 13·60 | 8·10 | 18·60 | 2·40 | ... | 0·60 | 74·00 |
| 1828 | 0·40 | 0·10 | 0·30 | 1·90 | 4·10 | 8·40 | 9·80 | 8·20 | 9·70 | 3·50 | ... | 0·40 | 46·80 |
| 1829 | 0·10 | 0·10 | 1·00 | 8·10 | 11·80 | 5·80 | 12·00 | 8·70 | 11·70 | 21·50 | ... | .·. | 80·80 |
| 1830 | ... | 1·80 | 10·10 | 9·10 | 17·70 | 10·90 | 10·60 | 14·60 | 6·80 | 9·10 | 3·20 | ... | 93·90 |
| 1831 | ... | 3·90 | 4·80 | 7·30 | 10·70 | 28·60 | 8·40 | 13·50 | 6·60 | 5·20 | ... | ... | 89·00 |
| 1832 | ... | 0·70 | 3·60 | 10·20 | 6·60 | 8·20 | 6·60 | 17·70 | 9·60 | 3·50 | ... | ... | 66·70 |
| 1833 | ... | ... | ... | 4·50 | 12·40 | 5·10 | 5·10 | 18·60 | 12·20 | 3·20 | 1·00 | 0·70 | 62·80 |
| 1834 | 1·00 | 0·70 | 5·70 | 5·20 | 4·90 | 16·00 | 5·60 | 9·00 | 11·20 | 6·20 | 0·40 | 2·10 | 68·00 |
| 1835 to 1851 | Not on record. | | | | | | | | | | | | |
| 1852 | ? | ? | ? | 3·94 | 7·51 | 8·79 | 23·13 | 13·65 | 9·41 | 3·83 | ... | ... | ? |
| 1853 | ... | 0·32 | ... | 1·64 | 8·62 | 11·37 | 17·86 | 8·86 | 24·68 | 1·73 | 0·60 | ... | 75·68 |
| 1854 | ... | 1·00 | 1·41 | 8·67 | 4·38 | 20·87 | 17·34 | 10·10 | 8·53 | 7·50 | 1·28 | 0·16 | 81·24 |

DACCA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Augt | Sept. | Oct. | Nov. | Dec. | Total |
| 1855 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | 0·55 | 1·22 | 7·41 | 11·09 | 15·67 | 20·83 | 12·32 | 4·51 | 4·73 | P | P | P |
| 1861 | 0·97 | ... | P | 6·42 | 14·11 | 5·26 | 15·87 | 5·88 | 7·74 | 8·58 | 3·52 | 0·10 | P |
| 1862 | 0·34 | 0·18 | 1·18 | 9·99 | 13·82 | 14·32 | 8·50 | 16·93 | 9·24 | 18·86 | ... | 0·55 | 93·91 |
| 1863 | ... | 0·17 | ... | 9·62 | P | 8·38 | 7·74 | 21·42 | 5·41 | 3·41 | ... | ... | P |
| 1864 | ... | 0·17 | 2·23 | 3·82 | 13·30 | 20·90 | 17·58 | 15·73 | 8·66 | 8·86 | 0·54 | ... | 91·79 |
| 1865 | ... | 0·74 | 1·56 | 14·16 | 9·32 | 14·97 | 21·62 | 6·32 | 4·58 | 2·77 | ... | ... | 76·04 |
| 1866 | 0·85 | 1·58 | 0·81 | 6·02 | 7·64 | 19·24 | 6 64 | 10·59 | 6·52 | 5·67 | ... | ... | 65·56 |
| 1867 | 0·83 | 0·27 | 1·66 | 4·66 | 4·30 | 4·51 | 15 66 | 9·52 | P | 3·20 | 5·60 | ... | P |
| 1868 | ... | 4·90 | 0·70 | 9·60 | 5·70 | 15·10 | 8·00 | 17·17 | 14·56 | 0·94 | 0·11 | ... | 76·78 |
| 1869 | 0·75 | 0·60 | 2·25 | 6·52 | 8·99 | 20·78 | 11·51 | 7·49 | 10·49 | 6·27 | ... | ... | 75·65 |
| 1870 | ... | ... | 0·75 | 2·40 | 4·10 | 11·00 | 8·20 | 19·30 | 15·70 | 3·70 | 0·10 | ... | 65·25 |
| 1871 | ... | ... | 3·70 | 6·40 | 17·00 | 19·30 | 15·70 | 6·60 | 8·40 | 4·80 | ... | ... | 81·90 |
| 1872 | 0·05 | 0·70 | 0·50 | 6·40 | 9·00 | 8·25 | 14·00 | 9·30 | 12·00 | 4·20 | ... | ... | 64·40 |
| 1873 | ... | 0·05 | 1·20 | 5·60 | 4·55 | 9·50 | 16·00 | 17·22 | 3·96 | 0·30 | 0·86 | ... | 59·24 |
| 1874 | 0·88 | 1·88 | 4·07 | 3·09 | 13·04 | 6·40 | 6·18 | 5·08 | 7·59 | 3·98 | ... | ... | 52·19 |
| 1875 | 1·74 | 0·08 | 0·88 | 2·21 | 5·03 | 21·85 | 9·17 | 11·95 | 6·29 | 0·22 | ... | ... | 59·42 |
| 1876 | ... | 0·96 | 3·13 | 3·69 | 10·07 | 9·06 | 16·28 | 11·24 | 16·52 | 2·77 | 2·74 | ... | 76·46 |
| 1877 | 0·52 | 2 67 | 3·86 | 6·16 | 7·63 | 17·31 | 18·09 | 17·82 | 10·33 | 3·57 | ... | 0·11 | 88·07 |
| 1878 | 0·73 | 0·55 | 0·30 | 6·47 | 8·36 | 6·58 | 19·16 | 15·92 | 15·31 | 5·85 | 2·31 | 0·50 | 82·04 |
| 1879 | ... | 0·75 | 0·06 | 0·51 | 4·42 | 14·37 | 20·51 | 13·71 | 13·28 | 6·29 | ... | 0·90 | 74·80 |
| 1880 | 0·29 | 6·11 | 12·45 | 4·37 | 15·25 | 19·85 | 14·27 | 16·22 | 13·03 | 10·45 | 0·20 | 0·15 | 112·64 |
| 1881 | ... | ... | 4·31 | 5·40 | 11·72 | 17·32 | 6·42 | 15·70 | 15·36 | 2·76 | ... | 0·07 | 79·06 |
| 1882 | 0·30 | 1·45 | 2·08 | 2·25 | 11·35 | 18·07 | 5·69 | 11·39 | 4·46 | 7·53 | 0·61 | ... | 65·18 |
| 1883 | 0·26 | 0·13 | 1·08 | 5·80 | 7·04 | 8·81 | 19·01 | 7·43 | 3·65 | 1·70 | ... | 1·59 | 56·50 |
| Mean | **0·29** | **0·97** | **2·45** | **5·84** | **9·25** | **13·25** | **12·93** | **12·38** | **10·19** | **5·40** | **0·68** | **0·23** | **73·86** |
| 1884 | ... | 1·71 | 1·07 | 6·38 | 10·78 | 11·95 | 8·95 | 6·00 | 6·69 | 3·40 | 0·85 | ... | 57·78 |
| 1885 | ... | 2·86 | 3·15 | 3·20 | 7·73 | 16·42 | 9·70 | 12·35 | 10·69 | 3·45 | 0·24 | 0·12 | 69·91 |
| 1886 | ... | ... | 5·09 | 6·47 | 7·62 | 14·85 | 16·33 | 19·38 | 11·78 | 1·82 | ... | 0·03 | 83·37 |
| Mean | **0·27** | **1·02** | **2·50** | **5·80** | **9·21** | **13·34** | **12·83** | **12·39** | **10·16** | **5·20** | **0·65** | **0·22** | **73·59** |

No. 198. COMILLAH.

Latitude N. 23° 28′. Longitude E. 91° 13′. Elevation 60 feet.

Administration: BENGAL. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1852 | P | P | 6·50 | 8·50 | 8·75 | 11·75 | 36·75 | 9·00 | 12·25 | 5·50 | ... | ... | P |
| 1853 | ... | ... | ... | 2·25 | 5·50 | 16·75 | 21·75 | 20·75 | 27·25 | 1·75 | ... | ... | 96·00 |
| 1854 | ... | 1·25 | 1·25 | 8·50 | 5·25 | 16·25 | 18·30 | 30·05 | 7·15 | 4·64 | 3·75 | 0·20 | 96·59 |
| 1855 to 1859 | Not on record. | | | | | | | | | | | | |

COMILLAH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1860 | ... | 0·50 | 0·35 | 7·30 | 11·45 | 25·50 | 18·15 | 15·70 | 14·00 | 9·45 | ? | ? | ? |
| 1861 | 0·45 | ... | ? | 6·75 | 12 85 | 19·73 | 24·50 | 7·20 | 11·50 | 7·05 | 8·45 | ... | ? |
| 1862 | 2·85 | ... | 3·50 | 18·35 | 11·90 | 20·15 | 4·95 | 21·90 | 13·05 | 15·50 | ... | 0·10 | 112·25 |
| 1863 | ... | 0·05 | ... | 17·40 | 10·40 | 13·25 | 16·85 | 19·30 | 5·25 | 3·85 | 0·10 | ... | 86·45 |
| 1864 | ... | 1·15 | 4·10 | 4·75 | 11·40 | 16·45 | 18·50 | 15·45 | 11·40 | 13·25 | 1·65 | ... | 98·10 |
| 1865 | 0·35 | 2·35 | 2·60 | 9·00 | 13·85 | 34·20 | 28·55 | 6·20 | 8·00 | 1·15 | ... | ... | 106·25 |
| 1866 | 0·70 | 1·15 | 0·30 | 4·90 | 9·80 | 21·85 | 12·35 | 12·90 | 6·40 | 8·75 | ... | ... | 79·10 |
| 1867 | 1·75 | 0·10 | 4·45 | 9·80 | 10·90 | 13·70 | 25·50 | 12·10 | 12·60 | 3·95 | 6·88 | 0·50 | 102·23 |
| 1868 | ... | 2·41 | 0·37 | 5·12 | 7·15 | 26·99 | 7·96 | 13·16 | 15·32 | 1·87 | 2·40 | ... | 82·75 |
| 1869 | 1·65 | 3·08 | 4·85 | 9·45 | 15·45 | 12·04 | 13·82 | 13·73 | 6·90 | 5·63 | 0·50 | ... | 87·10 |
| 1870 | ... | ... | 2·30 | 3·04 | 7·88 | 16·64 | 12·84 | 14·47 | 16·64 | 3·70 | ... | ... | 77·51 |
| 1871 | ... | ... | 2·38 | 4·20 | 20·11 | 23·64 | 17·84 | 15·72 | 7·21 | 7·05 | ... | ... | 98·15 |
| 1872 | 0·26 | 1·55 | 2·15 | 6·24 | 7·58 | 4·69 | 25·76 | 14·61 | 9·10 | 9·51 | 0·10 | 0·26 | 81·81 |
| 1873 | ... | 0·05 | 1·71 | 5·53 | 6·38 | 18·14 | 9·72 | 25·65 | 4·64 | 0·55 | 0·34 | 0·78 | 73·49 |
| 1874 | 1·10 | 1·89 | 3·39 | 2·24 | 15·94 | 9·70 | 13·13 | 6·58 | 9·80 | 8·40 | 0·19 | ... | 72·36 |
| 1875 | 4·43 | ... | 5·07 | 1·63 | 5·66 | 25·34 | 19·97 | 21·18 | 5·60 | 0·42 | ... | ... | 89·39 |
| 1876 | ... | 0·73 | 2·15 | 4·97 | 10·71 | 16·82 | 23·21 | 20·73 | 11·54 | 2·55 | 6·46 | ... | 99·87 |
| 1877 | 1·11 | 1·86 | 6·22 | 9·73 | 7·63 | 15·01 | 24·00 | 20·69 | 14·24 | 2·53 | 0·68 | ... | 103·70 |
| 1878 | 0·90 | 1·20 | 2·48 | 5·17 | 10·67 | 17·00 | 11·76 | 16·80 | 13·43 | 5·76 | 2·41 | 0·15 | 87·73 |
| 1879 | ... | 0·13 | ... | 1·46 | 5·64 | 15·94 | 26·26 | 13·61 | 10·25 | 6·16 | ... | 0·85 | 80·30 |
| 1880 | 0·38 | 2·79 | 7·57 | 0·99 | 14·08 | 25·67 | 10·59 | 18·42 | 14·23 | 4·57 | 0·60 | 0·15 | 100·04 |
| 1881 | 0 10 | ... | 7·05 | 8·10 | 10·24 | 18·80 | 19·91 | 17·47 | 17·90 | 1·69 | 0·18 | 0·06 | 101·50 |
| 1882 | 0·33 | 0·62 | 0·69 | 4·03 | 15·96 | 22·36 | 10·16 | 28·28 | 12·66 | 4·69 | 0·25 | ... | 100·03 |
| 1883 | 0·19 | 0·52 | 3·78 | 7·25 | 8·81 | 20·75 | 22·27 | 13·00 | 9·43 | 2·57 | ... | 4·66 | 93·23 |
| Mean | **0·64** | **0·90** | **2·89** | **6·54** | **10·44** | **18·49** | **18·35** | **16·47** | **11·40** | **5·28** | **1·34** | **0·30** | **93·04** |
| 1884 | ... | 1·24 | 1·44 | 8·32 | 12·08 | 20·69 | 18·00 | 11·86 | 11·21 | 8·79 | 2·23 | ... | 95·86 |
| 1885 | ... | 1·81 | 4·04 | 6·56 | 11·34 | 29·76 | 15·21 | 13·56 | 20·74 | 2·39 | 0·64 | 0·12 | 106·17 |
| 1886 | 0·04 | ... | 3·49 | 5·32 | 12·60 | 15·32 | 22·84 | 25·42 | 13·92 | 2·05 | ... | ... | 101·00 |
| Mean | **0·57** | **0 ·91** | **2·90** | **6·56** | **10·60** | **18·83** | **18·38** | **16·52** | **11·79** | **5·19** | **1·30** | **0·27** | **93·82** |

No. 199. AGARTALLA.

Latitude N. 23°50′. Longitude E. 91°23′. Elevation 100 feet.

Administration : BENGAL. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | ? | ? | ? | ? | ? | ? | ? | ? | 9·66 | 7·98 | ... | 0·45 | ? |
| 1873 | 0·29 | 0·07 | 1·69 | 6·87 | 5·35 | 11·35 | 5·27 | 18·23 | 7·23 | 1·12 | 0·42 | 0·57 | 58·46 |
| 1874 | 1·44 | 2·88 | 2·08 | 6·11 | 10·12 | 8·28 | 8·02 | 7·69 | 9·22 | 6·66 | 1·65 | ... | 64·15 |
| 1875 | 3·68 | 0·07 | 6·46 | 5·04 | 13·48 | 22·77 | 20·03 | 23·06 | 3·86 | 2·57 | ... | ... | 101·02 |
| 1876 | ... | 0·90 | 2·92 | 2·93 | 11·58 | 15·32 | 10·20 | 16·48 | 10·19 | 2·76 | 3·78 | ... | 77·06 |
| 1877 | 1·98 | 2·21 | 8·52 | 3·39 | 13·62 | 6·23 | 14·51 | 19·13 | 9·78 | 3·29 | 1·21 | ... | 83·87 |
| 1878 | 0·62 | 1 08 | 4·27 | 4·11 | 8·55 | 14·82 | 10·85 | 12·57 | 12·83 | 6·04 | 2·71 | 0·42 | 78·87 |

AGARTALLA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1879 | 0·11 | 1·53 | 0·80 | 1·30 | 11·20 | 10·92 | 14·97 | 11·54 | 14·69 | 7·98 | ... | 0·64 | 75·68 |
| 1880 | 0·55 | 2·56 | 11·60 | 1·70 | 12·63 | 20·03 | 12·59 | 11·33 | 13·74 | 7·81 | ... | ... | 94·54 |
| 1881 | ... | ... | 7·13 | 2·75 | 8·78 | 13·48 | 10·47 | 13·63 | 18·68 | 2·89 | 0·26 | ... | 78·07 |
| 1882 | 1·15 | 1·16 | 6·55 | 5·07 | 13·23 | 17·39 | 10·32 | 14·25 | 10·89 | 7·58 | 1·62 | ... | 89·21 |
| 1883 | 0·45 | ... | 1·40 | 4·63 | 13·87 | 14·89 | 14·14 | 10·12 | 8·88 | 2·81 | ... | 4·53 | 75·72 |
| Mean | 0·93 | 1·13 | 4·86 | 3·99 | 11·13 | 14·13 | 11·94 | 14·37 | 10·80 | 4·96 | 0·97 | 0·55 | 79·76 |
| 1884 | A. | 2·39 | 3·23 | 7·41 | 11·90 | 15·58 | 12·69 | 4·92 | 6·74 | 6·36 | 2·01 | ... | 73·23 |
| 1885 | ... | 1·63 | 2·52 | 5·57 | 6·73 | 24·05 | 7·97 | 9·50 | 14·02 | 4·35 | 0·35 | ... | 76·69 |
| 1886 | ... | ... | 4·00 | 5·97 | 12·38 | 8·21 | 16·89 | 21·90 | 10·66 | 2·35 | ... | ... | 82·36 |
| Mean | 0·73 | 1·18 | 4·51 | 4·49 | 10·96 | 14·52 | 12·07 | 13·88 | 10·74 | 4·84 | 0·93 | 0·44 | 79·29 |

No. 200. NOAKHOLLY.

Latitude N. 22° 48′. Longitude E. 91° 9′. Elevation 50 feet.

Administration: BENGAL. Rainfall Province No. X.

| Year | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | ? | ? | ? | ? | 11 35 | 26·39 | 16·39 | 29·53 | 13·07 | 9·40 | 2·50 | 0·30 | ? |
| 1849 | 0·70 | 4·40 | 5·50 | 2·25 | 16·00 | 10·50 | 16·80 | 21·25 | 15·30 | 8·50 | ... | ... | 101·20 |
| 1850 | ... | 3·20 | 1·40 | 4·95 | ... | 34·75 | 10·55 | 12·90 | 16·55 | 6·20 | ? | ? | ? |
| 1851 | ? | ? | ? | ? | 2·80 | 24·25 | 22·30 | 20·30 | 12·85 | 15·06 | ... | ... | ? |
| 1852 | ... | ... | 6·65 | 5·05 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1853 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | ... | ... | 5·52 | 6·63 | 29·74 | 24·10 | 31·76 | 15·46 | 17·21 | ? | ? | ? |
| 1861 | 0·35 | ... | ? | 5·56 | 19·38 | 17·30 | 22·75 | 9·91 | 16·54 | 8·97 | 8·57 | ... | ? |
| 1862 | 1·77 | ... | ... | ... | 6·69 | 11·54 | 14·76 | 17·20 | 11·04 | 13·80 | ... | 0·20 | 77·00 |
| 1863 | ... | ... | ... | 6·14 | 8·04 | 18·44 | 10·64 | 17·68 | 13·75 | 8·23 | ... | ... | 82·92 |
| 1864 | ... | ... | 1·48 | 2·71 | 8·11 | 23·75 | 18·73 | 15·43 | 21·15 | ? | 0·20 | ... | ? |
| 1865 | 0·20 | 0·38 | ... | 4·44 | 17·42 | 23·58 | 22·01 | 16·17 | 8·55 | 3·40 | ... | ... | 96·15 |
| 1866 | 0·90 | 0·82 | 0·30 | 3·20 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1867 | ? | ? | ? | 2·92 | 12·80 | 12·65 | 2·90 | 33·45 | 24·45 | 1·30 | 7·25 | ... | ? |
| 1868 | ... | ... | 0·20 | 11·38 | 5·94 | 30·87 | 11·15 | 12·08 | 7·86 | 1·24 | 1·17 | ... | 81·89 |
| 1869 | 1·11 | 0·80 | 2·30 | 3·10 | 1·70 | 12·80 | 22·70 | 16·50 | 17·70 | 4·50 | ... | ... | 83·21 |
| 1870 | ... | ... | 1·12 | 2·47 | 5·07 | 15·82 | 19·50 | 30·21 | 21·59 | 10·49 | 0·35 | ... | 106·62 |
| 1871 | ... | 0·15 | 3·83 | 2·25 | 13·33 | 36·42 | 21·17 | 17·38 | 20·82 | 17·48 | ... | ... | 132·83 |
| 1872 | 0·59 | 0·14 | 0·44 | 5·86 | 14·44 | 16·22 | 22·04 | 23·35 | 20·71 | 5·61 | 0·63 | 0·07 | 110·10 |
| 1873 | 0·01 | ... | 4·83 | 8·95 | 9·00 | 19·30 | 28·39 | 26·84 | 11·61 | 7·38 | 1·25 | 1·34 | 118·90 |
| 1874 | 0 24 | 3·14 | 2·58 | 0·25 | 14·74 | 19·78 | 13·97 | 21·07 | 18·15 | 10·80 | 0·84 | ... | 105·56 |
| 1875 | 2·60 | ... | 0·52 | 3·45 | 9·36 | 33·00 | 36·88 | 22·78 | 9·47 | 1·75 | ... | ... | 119·81 |
| 1876 | ... | 1·40 | 4·61 | 3·33 | 14·25 | 26·24 | 43·94 | 22·56 | 30·32 | 4·23 | 8·57 | ... | 159·45 |
| 1877 | 1·05 | 3·36 | 2·16 | 5·25 | 4·74 | 28·36 | 37·76 | 19·31 | 18·79 | 1·49 | 0·20 | ... | 122·47 |

NOAKHOLLY—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1878 | 1·19 | 0·73 | 2·25 | 2·48 | 3·75 | 21·07 | 21·25 | 22·95 | 18·60 | 8·00 | 3·53 | 0·17 | 105·97 |
| 1879 | ... | ... | 0·36 | ... | 5·44 | 31·48 | 23·85 | 32·93 | 12·89 | 8·25 | ... | 0·68 | 115·88 |
| 1880 | 0·93 | 0·22 | 2·51 | 2·27 | 14·67 | 33·25 | 18·67 | 26·72 | 21·14 | 5·06 | 0·16 | 0·25 | 125·85 |
| 1881 | 0·20 | ... | 5·54 | 5·87 | 11·05 | 43·47 | 19·15 | 29·92 | 21·05 | 2·20 | 0·44 | 0·11 | 139·00 |
| 1882 | 0·25 | 2·24 | 5·21 | 2·58 | 12·44 | 33·80 | 12·07 | 31·78 | 16·78 | 10·62 | 1·42 | ... | 129·19 |
| 1883 | ... | 1·41 | 10·71 | 6·16 | 7·47 | 36·40 | 25·48 | 24·05 | 19·87 | 3·27 | ... | 7·86 | 142·68 |
| Mean | 0·47 | 0·86 | 2·58 | 4·01 | 9·50 | 24·86 | 20·74 | 22·44 | 16·89 | 7·48 | 1·48 | 0·44 | 111·75 |
| 1884 | 0·14 | 0·78 | 4·56 | 9·03 | 9·81 | 13·95 | 23·30 | 18·01 | 19·76 | 9·67 | 8·92 | ... | 117·93 |
| 1885 | ... | 2·01 | 1·61 | 2·74 | 9·21 | 23·24 | 17·25 | 33·32 | 12·26 | 12·21 | 1·43 | 0·08 | 115·36 |
| 1886 | ... | ... | 5·69 | 9·44 | 10·05 | 27·22 | 28·31 | 30·66 | 17·12 | 2·67 | ... | 0·02 | 131·18 |
| Mean | 0·42 | 0·87 | 2·73 | 4·32 | 9·52 | 24·52 | 20·96 | 22·93 | 16·84 | 7·55 | 1·69 | 0·39 | 112·74 |

No. 201. DEMAGIRI.

Latitude N. 22° 48′. Longitude E. 92° 15′. Elevation 1,300 feet.

Administration: BENGAL. Rainfall Province No. XXII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | Not on record. | | | 3·20 | 8·30 | 12·70 | 22·80 | 23·20 | 24·30 | 3·52 | 0·35 | ... | ? |
| 1878 | 0·98 | 1·63 | 0·31 | 5·60 | 9·94 | 14·30 | 12·55 | 19·39 | ? | 13·17 | 3·45 | 0·85 | ? |
| 1879 | 0·22 | 0·21 | 0·38 | 0·10 | 10·12 | 27·97 | 11·99 | 13·57 | 22·36 | 14·32 | ... | 1·27 | 102·51 |
| 1880 | 1·54 | 1·11 | 2·05 | 3·98 | 12·95 | 28·30 | 12·27 | 18·02 | 18·74 | 6·20 | 0·41 | ... | 105·57 |
| 1881 | ... | 0·07 | 4·21 | 10 89 | 15·31 | 18·11 | 23·18 | 13·54 | 17·06 | 7·92 | 2·11 | 0·85 | 113·25 |
| 1882 | 0·49 | 6·46 | 1·02 | 5·47 | 15·91 | 21·65 | 23·75 | 20·11 | 21·64 | 9·74 | 5·56 | 1·04 | 132·84 |
| 1883 | ... | 0·74 | 4·34 | 4·37 | 22·38 | 20·22 | 15·35 | 42·33 | 15·13 | 0·85 | 0·87 | 5·42 | 132·00 |
| Mean | 0·54 | 1·70 | 2·05 | 4·80 | 13·56 | 20·46 | 17·41 | 21·45 | 19·87 | 7·96 | 1·82 | 1·35 | 112·97 |
| 1884 | 0·58 | 0·30 | 2·50 | 8·14 | 15·71 | 23·40 | 9·76 | 22·13 | 18·73 | 8·50 | 2·02 | ... | 111·77 |
| 1885 | ... | 1·46 | 4·57 | 4·11 | 5·91 | 18·32 | 12·52 | 15·34 | 17·41 | 4·75 | 3·57 | 0·26 | 88·22 |
| 1886 | ... | ... | 6·75 | 4·61 | 9·83 | 25·58 | 29·17 | 26·81 | 12·11 | 8·73 | ... | ... | 123·59 |
| Mean | 0·42 | 1·33 | 2·90 | 5·05 | 12·64 | 21·06 | 17·33 | 21·44 | 18·61 | 7·77 | 1·83 | 0·97 | 111·35 |

No. 202. RANGAMATIA HILL.

Latitude N. 22° 38′. Longitude E. 92° 15′. Elevation 142 feet.

Administration: BENGAL. Rainfall Province No. XXII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1869 | ... | 1·90 | 1·50 | 12·55 | 9·00 | 12·50 | 18·20 | 14·30 | 12·70 | 5·70 | ... | 0·50 | 88·85 |
| 1870 | ... | 1·00 | 2·40 | 4·60 | 7·00 | 17·10 | 10·60 | 22·03 | 13·14 | 15·48 | 1·00 | ... | 94·35 |

## RANGAMATIA HILL—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | ... | 0·04 | 3·40 | 3·62 | 16·48 | 23·16 | 18·13 | 16·89 | 10·13 | 8·33 | ... | ... | 100·18 |
| 1872 | 0·50 | 0·62 | 0·63 | 5·79 | 13·50 | 10·79 | 31·79 | 15·65 | 10·14 | 12·43 | ... | 0·32 | 102·16 |
| 1873 | 0·40 | ... | 0·10 | 3·96 | 4·94 | 10·09 | 13·95 | 19·27 | 9·10 | 4·94 | 0·04 | 0·93 | 73·72 |
| 1874 | 0·20 | 2·07 | 3·14 | 1·39 | 13·99 | 14·95 | 9·33 | 6·73 | 13·58 | 9·65 | 4·07 | ... | 79·10 |
| 1875 | 2·38 | ... | 2·97 | 1·37 | 6·32 | 26·71 | 20·80 | 32·85 | 7·86 | 2·46 | ... | ... | 103·72 |
| 1876 | ... | 0·97 | 4·51 | 2·41 | 11·19 | 18·83 | 22·55 | 19·31 | 12·84 | 3·84 | 4·75 | ... | 101·20 |
| 1877 | 0·41 | 4·82 | 6·52 | 1·29 | 6·01 | 14·06 | 28·76 | 37·46 | 29·24 | 3·88 | 0·61 | ... | 133·06 |
| 1878 | 0·52 | 0·99 | 2·33 | 5·10 | 6·73 | 13·99 | 15·73 | 21·93 | 15·63 | 12·82 | 3·31 | 0·22 | 99·30 |
| 1879 | 0·23 | ... | 0·44 | 0·55 | 10·05 | 27·54 | 19·91 | 12·96 | 13·93 | 11·12 | ... | 0·98 | 97·71 |
| 1880 | 1·60 | 0·18 | 1·74 | 2·33 | 9·51 | 24·73 | 14·65 | 17·01 | 17·13 | 8·50 | 2·20 | ... | 99·58 |
| 1881 | ... | 0·54 | 1·45 | 5·64 | 10·36 | 18·35 | 46·89 | 15·38 | 10·72 | 7·66 | 0·52 | 0·54 | 118·05 |
| 1882 | 0·20 | 4·46 | 2·51 | 2·99 | 10·41 | 20·65 | 11·16 | 14·41 | 11·80 | 7·04 | 7·76 | 0·42 | 93·81 |
| 1883 | ... | 0·55 | 5·12 | 5·13 | 20·10 | 18·66 | 11·65 | 20·57 | 10·48 | 3·61 | ... | 6·41 | 102·28 |
| Mean | 0·43 | 1·21 | 2·58 | 3·91 | 10·37 | 18·54 | 19·61 | 19·12 | 13·23 | 7·83 | 1·62 | 0·69 | 99·14 |
| 1884 | 0·43 | 1·04 | 2·99 | 5·65 | 10·48 | 20·41 | 9·86 | 9·36 | 10·14 | 5·99 | 2·41 | ... | 78·76 |
| 1885 | ... | 2·94 | 1·68 | 3·61 | 5·66 | 12·48 | 12·97 | 15·30 | 12·36 | 2·86 | 4·72 | 0·29 | 74·87 |
| 1886 | ... | ... | 5·51 | 2·91 | 9·02 | 25·48 | 28·39 | 21·88 | 11·86 | 3·70 | 0·20 | ... | 108·95 |
| Mean | 0·38 | 1·23 | 2·72 | 3·94 | 10·04 | 18·69 | 19·18 | 18·52 | 12·93 | 7·22 | 1·75 | 0·59 | 99·19 |

No. 203. CHITTAGONG.

Latitude N. 22°21′. Longitude E. 91°50′. Elevation 87 feet.

Administration : BENGAL. Rainfall Province No. XXII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | P. | P. | P | P | 15·97 | 27·16 | 7·62 | 25·65 | 14·66 | 3·16 | 2·51 | 3·60 | P |
| 1849 | 1·23 | 5·51 | 3·58 | 7·00 | 21·25 | 18·00 | 17·70 | 26·63 | 7·90 | 2·93 | ... | ... | 111·73 |
| 1850 | ... | ... | 2·60 | 3·00 | 1·70 | 14·40 | 8·80 | 43·00 | 7·65 | 4·40 | 1·30 | 1·50 | 88·35 |
| 1851 | ... | 2·10 | ... | 4·30 | 8·15 | 30·87 | 13·80 | 8·23 | 20·43 | 5·48 | . | ... | 93·36 |
| 1852 | 0·30 | ... | 4·34 | 4·75 | P | 14·56 | 24·44 | 9·02 | 20·15 | 5·19 | 0·25 | 0·14 | P |
| 1853 | ... | ... | ... | 0·65 | 1·29 | 16·96 | 27·52 | 9·54 | 25·97 | 2·65 | ... | ... | 84·58 |
| 1854 | P | 1·07 | P | 17·20 | 5·46 | 22·00 | 16·38 | P | 13·23 | 7·85 | 1·10 | ... | P |
| 1855 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | ... | 1·00 | 4·18 | 7·84 | 24·85 | 29·91 | 21·84 | 5·52 | 7·68 | P | P | P |
| 1861 | 0·69 | ... | P | 5·70 | 10·40 | 24·40 | 31·00 | 10·00 | 11·30 | 13·00 | ... | ... | P |
| 1862 and 1863 | Not on record. | | | | | | | | | | | | |
| 1864 | P | P | P | P | 5·60 | 20·44 | 26·88 | 40·99 | 5·45 | 12·03 | 0·86 | ... | P |
| 1865 | 0·27 | 0·72 | 0·20 | 3·52 | 11·14 | 12·51 | 40·39 | 7·87 | 6·35 | 3·82 | 1·60 | ... | 88·39 |
| 1866 | ... | 0·25 | 0·07 | 5·29 | 3·62 | 31·94 | 16·85 | 14·39 | 8·95 | 6·15 | ... | ... | 87·51 |
| 1867 | 1·77 | 1·42 | 2·72 | ... | 7·60 | 5·70 | 32·56 | 26·91 | 33·27 | 9·23 | 1 5 4·1 | ... | 136·62 |
| 1868 | ... | 6·21 | 2·40 | 19·96 | 11·26 | 49·63 | 15·62 | 29·19 | 18·01 | 0·46 | 1·31 | ... | 154·05 |

CHITTAGONG—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1869 | 0·16 | 1·64 | 0·52 | 7·12 | 8·47 | 15·18 | 29·83 | 22·22 | 16·70 | 2·87 | ... | 0·40 | 105·11 |
| 1870 | ... | 0 13 | 0·85 | 4·30 | 4·42 | 16·12 | 8·28 | 23·03 | 15·44 | 20·74 | 0·21 | ... | 93·52 |
| 1871 | ... | ... | 4·19 | 1·92 | 8·89 | 38·46 | 17·45 | 15·48 | 10·34 | 8·44 | ... | ... | 105·17 |
| 1872 | 0·44 | 1·14 | ... | 5·11 | 4·96 | 10·80 | 30·80 | 15·59 | 14·19 | 4·74 | ... | 0·76 | 88·53 |
| 1873 | 0·35 | ... | ... | 5·71 | 5·34 | 21·29 | 19·36 | 18·49 | 10·95 | 3·95 | 0·23 | 0·72 | 86·39 |
| 1874 | ... | 2·77 | 1·66 | 0·59 | 17·07 | 15·88 | 13·99 | 6·56 | 15·79 | 7·02 | 1·76 | ... | 83·09 |
| 1875 | 5·68 | ... | 1·25 | 6·23 | 6·97 | 33·02 | 27·86 | 38·63 | 13·92 | 2·16 | ... | ... | 135·72 |
| 1876 | ... | 1·66 | 1·15 | 0·87 | 13·59 | 17·34 | 32·54 | 13·05 | 9·12 | 1·61 | 5·52 | ... | 96·45 |
| 1877 | 0·08 | 4·03 | 2·31 | 2·17 | 6·10 | 17·60 | 27·35 | 41·35 | 21·89 | 1·89 | 0·21 | ... | 124·98 |
| 1878 | 0·26 | 0·37 | 2·16 | 2·41 | 5·22 | 20·04 | 21·42 | 22·52 | 16·19 | 7·56 | 4·49 | ... | 102·64 |
| 1879 | 0·36 | ... | 0·11 | 0·07 | 4·28 | 36·58 | 25·98 | 12·84 | 7·37 | 6·71 | ... | 1·01 | 95·31 |
| 1880 | 0·27 | ... | 0·75 | 2·00 | 15·97 | 27·15 | 22·66 | 26·14 | 17·14 | 4·33 | 0·19 | ... | 116·60 |
| 1881 | ... | ... | 1·14 | 4·53 | 11·18 | 25·00 | 30·95 | 10·13 | 9·11 | 1·55 | 1·41 | 0·76 | 95·76 |
| 1882 | ... | 2·31 | 3·06 | 1·91 | 11·89 | 29·57 | 7·61 | 11·26 | 10·83 | 5·35 | 2·20 | 0·50 | 86·49 |
| 1883 | ... | 0·85 | 2·93 | 3·83 | 19·20 | 37·76 | 24·71 | 16·02 | 15·67 | 3·59 | 0·07 | 8·49 | 133·12 |
| Mean | 0·46 | 1·19 | 1·56 | 4·60 | 9·10 | 23·28 | 22·42 | 20·23 | 13·91 | 5·74 | 1·45 | 0·64 | 104·58 |
| 1884 | ... | 2·21 | 2·47 | 7·28 | 13·24 | 26·38 | 14·91 | 12·83 | 14·12 | 7·75 | 2·87 | ... | 104·06 |
| 1885 | ... | 1·38 | 4·29 | 7·54 | 5·23 | 19·95 | 27·02 | 21·69 | 19·71 | 4·53 | 4·77 | 0·33 | 116·44 |
| 1886 | ... | ... | 7·50 | 0·23 | 11·56 | 40·97 | 19·58 | 33·68 | 14·79 | 4·94 | 0·39 | 0·02 | 153·66 |
| Mean | 0·41 | 1·19 | 1·90 | 4·65 | 9·19 | 23·83 | 22·24 | 20·48 | 14·13 | 5·74 | 1·57 | 0·59 | 105·92 |

No. 204. COX'S BAZAR.

Latitude N. 21° 27′. Longitude E. 92° 1′. Elevation 20 feet.

Administration : BENGAL. Rainfall Province No. XXII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | P | P | P | P | P | P | P | 21·81 | 18·69 | 14·79 | ... | ... | P |
| 1871 | ... | ... | 5·64 | 3·13 | 18·40 | 47·13 | 38·52 | 31·12 | 14·09 | 5·57 | ... | ... | 163·60 |
| 1872 | 0·40 | 0·65 | 0·06 | 1·83 | 14·91 | 29·73 | 31·63 | 28·69 | 16·26 | 13·87 | ... | 1·65 | 139·68 |
| 1873 | 0·90 | ... | ... | 6·81 | 8·54 | 34·18 | 56 35 | 23·02 | 13·64 | 8·90 | 0·49 | ... | 152·83 |
| 1874 | 0·05 | 0·21 | 1·32 | 0·25 | 11·30 | 29·18 | 24·60 | 12·97 | 12·17 | 10·93 | 2·90 | ... | 105·88 |
| 1875 | 2·55 | ... | 0·02 | 8·70 | 5·80 | 38·15 | 51·88 | 17·05 | 20·86 | 2·85 | ... | ... | 147·86 |
| 1876 | ... | ... | 2·24 | 0·29 | 10·39 | 28·77 | 56·76 | 21·65 | 17·69 | 2·26 | 5·70 | ... | 145·75 |
| 1877 | 0·55 | 1·33 | 1·05 | 2·06 | 7·96 | 24·97 | 53·23 | 35·47 | 14·54 | 4·94 | 2·42 | ... | 148·52 |
| 1878 | ... | ... | 2·27 | 2·25 | 7·00 | 28·40 | 30·28 | 17·10 | 15·05 | 8·45 | 3·35 | ... | 114·15 |
| 1879 | 1·21 | ... | ... | 0·11 | 8·09 | 38·09 | 48·02 | 33·10 | 8·29 | 17·79 | ... | 1·65 | 156·35 |
| 1880 | 0·38 | 0·74 | 1·35 | 1·75 | 5·61 | 44·54 | 33·24 | 19·82 | 13·15 | 3·93 | 0·85 | ... | 125·36 |
| 1881 | ... | ... | 0·38 | 2·20 | 12·36 | 33·15 | 43·38 | 27·31 | 16·84 | 3·58 | 0·96 | 0·45 | 140·61 |
| 1882 | 0·06 | 1·52 | 1·08 | 1·01 | 14·99 | 44·12 | 29·75 | 24·35 | 12·66 | 5·30 | 4·07 | 0·72 | 139·63 |
| 1883 | ... | 0·03 | 5·10 | 2·44 | 10·75 | 49·48 | 33·41 | 30·98 | 17·10 | 3·93 | 0·32 | 0·94 | 154·48 |
| Mean | 0·47 | 0·34 | 1·58 | 2·53 | 10·47 | 36·15 | 40·85 | 24·60 | 15·07 | 7·65 | 1·50 | 0·39 | 141·60 |

COX'S BAZAR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | ... | 2·32 | 2·76 | 0·64 | 18·20 | 30·78 | 28·85 | 20·29 | 25·43 | 8·90 | 2·61 | ... | 140·78 |
| 1885 | ... | 0·36 | 0·37 | 6·62 | 6·79 | 35·74 | 43·92 | 63·46 | 8·48 | 6·14 | 9·73 | 1·20 | 182·81 |
| 1886 | ... | ... | 6·43 | 0·95 | 7·70 | 27·73 | 39·37 | 31·21 | 16·14 | 11·83 | 1·72 | 0·28 | 143·36 |
| Mean | 0·38 | 0·45 | 1·88 | 2·57 | 10·55 | 35·26 | 40·20 | 27·02 | 15·36 | 7·88 | 2·07 | 0·41 | 144·03 |

No. 205. JELLASORE.

Latitude N. 21°48′. Longitude E. 87°13′. Elevation 43 feet.

Administration : BENGAL. Rainfall Province No. XI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1873 | ? | ? | ? | 1·02 | 0·98 | 6·57 | 16·16 | 16·24 | 6·64 | 0·44 | ... | ... | ? |
| 1874 | 2·90 | 2·78 | 0·52 | 1·90 | 0·03 | 8·68 | 19·01 | 13·34 | 12·81 | 15·58 | 0·65 | ... | 78·18 |
| 1875 | 0·21 | ... | ... | 2·80 | 2·90 | 11·13 | 15·88 | 14·13 | 8·54 | 4·98 | ... | ... | 60·57 |
| 1876 | ... | ... | 1·45 | 1·55 | 1·88 | 5·72 | 20·16 | 15·22 | 10·82 | 8·77 | ... | ... | 65·57 |
| 1877 | 2·54 | 3·19 | 0·46 | 3·58 | 4·36 | 8·99 | 19·00 | 13·83 | 6·22 | 3·74 | ... | 0·20 | 66·11 |
| 1878 | 0·83 | 0·30 | 3·77 | 1·55 | 8·02 | 0·74 | 13·16 | 11·88 | 9·86 | 3·90 | 3·25 | ... | 57·76 |
| 1879 | ... | ... | ... | ... | 1·76 | 5·05 | 12·24 | 6·40 | 16·16 | 2·10 | ... | 0·10 | 3·81 |
| 1880 | 0·02 | 1·10 | 0·01 | 0·76 | 8·26 | 7·89 | 10·34 | 11·71 | 13·45 | 5·65 | 0·36 | ... | 59·55 |
| 1881 | 2·09 | ... | 0·91 | 0·78 | 5·48 | 8·84 | 24·45 | 7·47 | 10·31 | 7·60 | ... | 0·20 | 68·13 |
| 1882 | 0·30 | 2·60 | ... | 1·45 | 4·10 | 4·77 | 7·70 | 9·24 | 12·40 | 4·89 | 0·20 | ... | 47·65 |
| 1883 | ... | 2·80 | 2·04 | 2·55 | 2·21 | 15·49 | 15·87 | 12·29 | 5·49 | 1·48 | ... | ... | 60·22 |
| Mean | 0·89 | 1·28 | 0·92 | 1·63 | 3·63 | 7·62 | 15·82 | 11·98 | 10·25 | 5·38 | 0·45 | 0·05 | 59·90 |
| 1884 | ... | ... | ... | 0·47 | 1·29 | 6·44 | 19·97 | 7·49 | 14·98 | 1·71 | ... | ... | 52·35 |
| 1885 | ... | 1·69 | ... | ... | 2·62 | 7·63 | 4·37 | 8·10 | 8·93 | 0·66 | 0·17 | 1·05 | 35·22 |
| 1886 | 0·32 | ... | 2·87 | ... | 3·94 | 17·62 | 14·56 | 7·34 | 14·19 | 4·93 | 0·72 | 0·15 | 66·64 |
| Mean | 0·71 | 1·11 | 0·92 | 1·32 | 3·42 | 8·25 | 15·21 | 11·05 | 10·77 | 4·75 | 0·42 | 0·12 | 58·05 |

No. 206. BALASORE.

Latitude N. 21° 30′ Longitude E. 86° 58′. Elevation 90 feet.

Administration : BENGAL. Rainfall Province No. XI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1859 | ... | ... | 4·00 | 5·70 | 3·10 | ? | 6·70 | ? | 8·75 | ? | ... | 0·40 | ? |
| 1860 | 0·50 | 0·80 | ... | 7·50 | 2·90 | 8·40 | 7·10 | 6·80 | 15·20 | 1·30 | 0·10 | ... | 50·60 |
| 1861 | 4·60 | ... | ... | 7·90 | 4·80 | 10·90 | 10·00 | 18·50 | 7·40 | 4·70 | 7·70 | ... | 76·50 |

BALASORE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | 3·70 | ... | 1·80 | 0·70 | 2·20 | 10·00 | 17·20 | 11·60 | 35·40 | 29·30 | ... | ... | 111·90 |
| 1863 | ... | 5·20 | ... | 0·30 | 4·90 | 33·80 | 5·20 | 10·75 | 14·95 | 7·70 | 4·00 | ... | 86·80 |
| 1864 | ... | 0·55 | 3·80 | 1·90 | 9·80 | 3·00 | 15·15 | 15·75 | 7·90 | 6·10 | 0·85 | ... | 64·80 |
| 1865 | 0·25 | 1·35 | 5·75 | 5·70 | 11·55 | 4·25 | 5·90 | 8·25 | 9·30 | 0·30 | ... | ... | 52·60 |
| 1866 | 1·00 | 3·25 | ... | 4·55 | 4·60 | 6·85 | 7·75 | 21·20 | 10·50 | 8·55 | ... | ... | 68·25 |
| 1867 | 1·40 | ... | 3·35 | 5·00 | 3·50 | 7·70 | 6·70 | 13·15 | 15·22 | 9·00 | 2·60. | ... | 67·62 |
| 1868 | 0·70 | 1·30 | ... | 2·90 | 6·00 | 36·20 | 5·60 | 14·30 | 9·60 | 0·40 | ... | ... | 77·00 |
| 1869 | 0·16 | 0·82 | 6·80 | ... | 0·64 | 7·10 | 8·38 | 5·94 | 13·19 | 6·74 | ... | ... | 49·77 |
| 1870 | 1·32 | ... | 0·89 | 2·84 | 1·03 | 9·51 | 8·44 | 9·38 | 11 46 | 7·69 | 2·21 | ... | 54·77 |
| 1871 | ... | 0·65 | 0·83 | 10·60 | 3·33 | 7·31 | 10·89 | 9·85 | 14·82 | 5·13 | ... | ... | 63·41 |
| 1872 | ... | 2·07 | ... | 0·77 | 3·06 | 12·13 | 14·27 | 10·96 | 13·97 | 11·97 | 0·82 | ... | 71·29 |
| 1873 | ... | ... | 0·92 | 1·77 | 4·58 | 3·64 | 12·00 | 11·77 | 7·61 | 4·69 | 0·77 | 0·60 | 8·35 |
| 1874 | 0·33 | 3·47 | 0·79 | 0·67 | 1·30 | 5·08 | 13·43 | 10·15 | 7·60 | 12·03 | 0·34 | ... | 55·19 |
| 1875 | 2·76 | ... | 0·59 | 1·71 | 4·15 | 5·13 | 16·88 | 13·17 | 12·69 | 2·37 | ... | ... | 59·45 |
| 1876 | ... | 0·50 | 3·00 | 4·06 | 6·32 | 5·40 | 20·83 | 16·29 | 15·95 | 10·32 | 0·05 | ... | 82·72 |
| 1877 | 1·46 | 1·85 | 0·84 | 2·40 | 5·03 | 11·65 | 21·73 | 13·61 | 5·51 | 3·32 | ... | ... | 67·40 |
| 1878 | 0·50 | 0·27 | 1·33 | 4·91 | 7·61 | 1·77 | 10·19 | 14·70 | 7·90 | 8·59 | 3·07 | 1·05 | 61·89 |
| 1879 | ... | 0·33 | 0·03 | ... | 1·55 | 4·95 | 10·50 | 8·26 | 17·09 | 6·10 | ... | 0·81 | 49·62 |
| 1880 | 0·07 | 2·94 | 0·67 | 2·23 | 7·80 | 11·92 | 9·28 | 16·07 | 11·63 | 5·38 | 6·24 | 0·19 | 74·33 |
| 1881 | ... | 0·09 | 6·04 | 1·13 | 6·59 | 8·39 | 21·75 | 11·06 | 14·72 | 9·65 | ... | 0·29 | 79·71 |
| 1882 | 0·24 | 0·42 | ... | 4·20 | 8·26 | 5·24 | 13·64 | 13·88 | 21·69 | 10·10 | 1·35 | ... | 79·02 |
| 1883 | ... | 3·88 | 2·01 | 1·74 | 4·91 | 17·69 | 10·73 | 15·39 | 3·76 | 1·70 | ... | 1·40 | 63·21 |
| Mean | **0·76** | **1·19** | **1·74** | **3·25** | **4·78** | **9·92** | **11·61** | **12·53** | **12·55** | **7·21** | **1·20** | **0·24** | **66·98** |
| 1884 | ... | 9·46 | 0·06 | 5·40 | 3·31 | 18·32 | 19·11 | 11·53 | 13·57 | 4·48 | ... | ... | 76·24 |
| 1885 | 0·37 | 4·01 | 0·36 | 0·16 | 3·07 | 9·31 | 13·06 | 15·22 | 11·07 | 1·84 | 0·19 | 1·22 | 59·88 |
| 1886 | 0·54 | ... | 5·28 | 0·88 | 5·76 | 14·40 | 11·17 | 11·96 | 17·82 | 5·65 | 0·50 | ... | 73·96 |
| Mean | **0·71** | **1·22** | **1·76** | **3·14** | **4·70** | **10·37** | **11·88** | **12·57** | **12·72** | **6·86** | **1·10** | **0·26** | **67·29** |

No. 207. BHUDDRUCK.

Latitude N. 21° 3′. Longitude E. 86° 33′. Elevation 30 feet.

Administration: BENGAL. Rainfall Province No. XI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ? | ? | ? | ? | ? | ? | 7·57 | 6·71 | 9·68 | 5·02 | 5·40 | ... | ? |
| 1871 | 0·03 | 0·24 | 0·58 | 2·33 | 9·81 | 6·31 | 14·14 | 12·10 | 6·45 | 0 99 | ... | ... | 52·98 |
| 1872 | ... | 0·89 | 0·55 | 2·15 | 3·51 | 14·52 | 16·65 | 9·06 | 8 82 | 6·69 | ... | 0·10 | 62·94 |
| 1873 | ... | ... | ... | 0·92 | 4·65 | 3·04 | 5·04 | 13·11 | 5·50 | 3·00 | 0·33 | 0·07 | 35·66 |
| 1874 | 1·77 | 4·48 | 0·74 | 2·63 | 0·12 | 7·34 | 13·01 | 6·58 | 12·37 | 7·16 | 1·44 | ... | 57·57 |
| 1875 | 0·67 | ... | ... | 0·37 | 3·90 | 9·46 | 14·12 | 8·25 | 11 88 | 1·98 | ... | ... | 50·63 |
| 1876 | ... | ... | 0·01 | 1·67 | 1·89 | 4·03 | 15·97 | 9·22 | 11·10 | 7·88 | ... | ... | 51·77 |
| 1877 | 1·51 | 6·38 | 0·67 | 4·42 | 7·36 | 10·71 | 10·10 | 8·17 | 6·13 | 0·36 | ... | 0·17 | 55·98 |
| 1878 | 0·05 | 0·34 | 0·33 | 3·61 | 7·29 | 0·87 | 16·20 | 17·03 | 9·18 | 7·78 | 4·34 | 0·17 | 68·09 |
| 1879 | ... | 1·25 | 0·34 | ... | 5·25 | 5·14 | 7·08 | 12·36 | 15·60 | 0·89 | ... | 1·42 | 49·33 |

BHUDDRUCK—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1880 | ... | 1·28 | 0·60 | 0·45 | 7·27 | 13·83 | 4·15 | 14·66 | 11·74 | 8·78 | 1·27 | ... | 64·03 |
| 1881 | ... | ... | 4·98 | 3·74 | 3·47 | 12·22 | 29·35 | 12·50 | 11·36 | 5·93 | 0·08 | 2·60 | 85·53 |
| 1882 | 0·50 | 2·79 | ... | 2·55 | 5·74 | 10·33 | 16·48 | 11·66 | 12·32 | 8·70 | 1·38 | ... | 72·36 |
| 1883 | ... | 0·54 | 2·61 | 2·40 | 2·88 | 16·87 | 11·91 | 10·04 | 8·36 | 0·58 | 0·05 | 1·20 | 57·44 |
| Mean | 0·35 | 1·39 | 0·88 | 2·04 | 4·86 | 8·82 | 12·98 | 10·88 | 10·04 | 4·70 | 1·02 | 0·41 | 58·37 |
| 1884 | ... | 0·88 | 1·00 | 1·76 | 1·81 | 17·23 | 6·71 | 8·17 | 16·21 | 9·88 | ... | 0·14 | 63·79 |
| 1885 | ... | 2·00 | 0·52 | 2·77 | 2·74 | 5·80 | 11·00 | 14·95 | 13·08 | 0·97 | 0·70 | 1·10 | 55·63 |
| 1886 | 0·69 | ... | 6·42 | ... | 8·78 | 11·22 | 8·15 | 7·29 | 17·33 | 4·49 | 1·61 | ... | 65·98 |
| Mean | 0·33 | 1·31 | 1·21 | 1·94 | 4·78 | 9·31 | 12·21 | 10·75 | 11·01 | 4·77 | 1·09 | 0·41 | 59·12 |

No. 208. CUTTACK.

Latitude N. 20°29′. Longitude E. 85°54′. Elevation 80 feet.

Administration : BENGAL. Rainfall Province No. XI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | P | P | P | P | P | 1·33 | 12·37 | 8·90 | 7·92 | 7·14 | 0·10 | 0·02 | P |
| 1849 | 1·02 | ... | 0·10 | 0·03 | 1·60 | 11·15 | 12·90 | 8·85 | 4·95 | 4·10 | 0·80 | 7·60 | 53·10 |
| 1850 | ... | 0·15 | 0·25 | 3·20 | 0·65 | 10·00 | 13·77 | 7·32 | 6·42 | 5·67 | 0·32 | ... | 47·75 |
| 1851 | 0·10 | 0·30 | 0·20 | 1·62 | 0·58 | 5·45 | 9·69 | 11·28 | 6·72 | 8·17 | 1·35 | ... | 45·46 |
| 1852 | 0·25 | ... | 6·12 | 1·00 | P | P | P | P | P | P | P | P | P |
| 1853 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | ... | ... | P | 0·30 | 6·50 | 7·20 | P | P | 0·70 | 3·50 | P | P |
| 1861 | 3·01 | ... | 3·56 | ... | 3·92 | 8·97 | 10·61 | 23·39 | 15·68 | 4·56 | P | ... | P |
| 1862 | 0·85 | ... | ... | ... | 1·67 | P | 7·90 | 17·07 | 11·98 | 13·33 | ... | ... | P |
| 1863 | ... | ... | ... | 3·42 | 1·00 | 21·00 | P | P | 7·10 | P | 1·70 | P | P |
| 1864 | ... | 1·10 | ... | P | P | P | P | P | P | P | P | P | P |
| 1865 | Not on record. | | | | | | | | | | | | |
| 1866 | P | P | P | P | P | P | P | P | P | P | 1·85 | ... | P |
| 1867 | ... | 1·50 | 0·80 | 2·35 | 2·15 | 7·75 | 10·83 | 9·51 | 10·11 | 5·40 | 0·35 | ... | 50·75 |
| 1868 | 0·10 | 0·05 | 0·10 | 1·40 | 3·23 | 17·13 | 10·12 | 8·92 | 9·80 | 1·96 | ... | ... | 52·81 |
| 1869 | 0·40 | 1·37 | 1·74 | 1·65 | 0·85 | 6·75 | 15·04 | 5·76 | 9·23 | 5·35 | ... | ... | 48·14 |
| 1870 | 1·05 | ... | 0·90 | 1·22 | 1·85 | 7·42 | 7·33 | 10·01 | 8·80 | 8·61 | 2·73 | ... | 49·92 |
| 1871 | ... | 0·56 | 0·43 | 5·77 | 4·20 | 7·44 | 15·32 | 5·93 | 9·67 | 0·91 | ... | 0·16 | 50·39 |
| 1872 | ... | 0·63 | ... | 0·65 | 2·88 | 17·73 | 12·72 | 9·54 | 8·76 | 16·16 | 2·39 | 0·20 | 71·16 |
| 1873 | ... | ... | 2·71 | 1·66 | 1·12 | 2·98 | 10·55 | 10·97 | 6·27 | 2·54 | 0·35 | 0·36 | 38·61 |
| 1874 | 1·82 | 2·23 | 0·68 | ... | 3·48 | 16·92 | 16·13 | 20·39 | 12·13 | 10·71 | 2·20 | 0·05 | 86·74 |
| 1875 | 1·03 | ... | 0·07 | 2·54 | 3·32 | 19·92 | 27·19 | 8·34 | 19·26 | 10·25 | ... | ... | 91·92 |
| 1876 | ... | ... | 0·05 | 0·20 | 3·34 | 5·60 | 9·80 | 7·57 | 9·83 | 4·89 | ... | ... | 41·28 |
| 1877 | 0·61 | 1·23 | 0·85 | 3·85 | 5·69 | 5·91 | 9·22 | 4·47 | 6·25 | 3·05 | ... | ... | 41·13 |
| 1878 | 0·12 | 0·14 | 0·98 | 0·74 | 5·72 | 8·87 | 11·80 | 11·64 | 6·40 | 4·92 | 2·83 | 0·41 | 54·57 |
| 1879 | ... | 0·07 | 1·15 | ... | 8·52 | 3·57 | 12·23 | 18·96 | 9·44 | 4·89 | 0·25 | 1·54 | 60·62 |

CUTTACK—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1880 | 0·04 | 2·08 | ... | 1·32 | 6·68 | 8·01 | 10·93 | 21·18 | 10·29 | 5·17 | 1·36 | .... | 67·06 |
| 1881 | ... | ... | 2·20 | ·950 | 1·23 | 16·94 | 14·03 | 10·05 | 11·27 | 2·33 | 0·51 | 0·18 | 59·33 |
| 1882 | 0·06 | 0·57 | 0·03 | 1·33 | 5·63 | 6·79 | 24·57 | 14·71 | 11·86 | 7·64 | 2·77 | ... | 75·96 |
| 1883 | ... | 0·18 | 1·26 | 0·08 | 4·96 | 23·09 | 14·32 | 8·61 | 12·93 | 0·55 | 0·30 | 0·96 | 67·24 |
| Mean | 0·40 | 0·47 | 0·93 | 1·44 | 3·09 | 10·30 | 12·77 | 11·41 | 9·71 | 5·79 | 1·03 | 0·48 | 57·82 |
| 1884 | 0·03 | 0·72 | 2·10 | 3·52 | 1·97 | 17·83 | 9·90 | 11·82 | 8·68 | 2·40 | ... | 0·45 | 59·42 |
| 1885 | ... | 3·40 | 1·06 | 1·91 | 5·74 | 3·08 | 11·64 | 6·90 | 8·33 | 2·60 | 1·47 | 1·61 | 47·74 |
| 1886 | 0·34 | 0·35 | 5·66 | ... | 5·44 | 20·02 | 11·03 | 8·63 | 13·99 | 11·77 | 1·99 | 0·48 | 79·70 |
| Mean | 0·37 | 0·57 | 1·14 | 1·48 | 3·23 | 10·67 | 12·56 | 11·15 | 9·78 | 5·77 | 1·04 | 0·52 | 58·28 |

No. 209. FALSE-POINT.

Latitude N. 20° 20′. Longitude E. 86° 47′. Elevation 15 feet.

Administration: BENGAL. Rainfall Province No. XI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | 0·10 | 0·30 | 1·30 | 2·30 | 7·80 | 18·70 | 12·80 | 11·30 | 12·50 | 14·30 | 5·80 | ... | 87·20 |
| 1868 | ... | 1·35 | 0·40 | 5·00 | 1·80 | 9·20 | 12·75 | 9·95 | 20·40 | 4·00 | 0·35 | ... | 65·20 |
| 1869 | 0·90 | 2·30 | 3·60 | ... | ... | 3·70 | 15·30 | 12·65 | 2·60 | 13·25 | ... | ... | 54·30 |
| 1870 | ... | ... | 0·50 | 0·90 | 0·60 | 6·55 | 12·00 | 19·05 | 10·45 | 12·60 | 10·40 | ... | 64·05 |
| 1871 | ... | 0·30 | 3·15 | 8·10 | 3·30 | 10·90 | 11·64 | 12·45 | 7·90 | 12·34 | 0·20 | ... | 70·28 |
| 1872 | ... | 0·70 | 1·70 | ... | 2·71 | 35·45 | 17·55 | 10·95 | 17·70 | 15·85 | 4·05 | ... | 106·66 |
| 1873 | ... | ... | 0·05 | 1·75 | 3·95 | 2·00 | 13·50 | 10·55 | 6·55 | 20·50 | 1·50 | 1·25 | 61·60 |
| 1874 | 0·76 | 0·90 | 0·70 | ... | 2·00 | 9·25 | 13·70 | 24·10 | 9·50 | 19·50 | 8·65 | ... | 89·06 |
| 1875 | 2·85 | ... | ... | 0·80 | 3·05 | 13·05 | 33·40 | 14·30 | 14·10 | 6·55 | ... | ... | 88·10 |
| 1876 | ... | ... | 0·50 | 0·35 | 0·60 | 4·80 | 18·00 | 18·85 | 12·40 | 18·50 | 0·25 | ... | 74·25 |
| 1877 | 1·75 | 4·20 | 0·75 | 24·00 | 3·95 | 5·65 | 10·70 | 20·10 | 6·20 | 1·90 | 0·04 | 0·07 | 79·31 |
| 1878 | 0·27 | ... | 0·52 | 0·90 | 7·10 | 1·52 | 9·55 | 8·14 | 12·69 | 11·39 | 3·79 | 4·71 | 60·58 |
| 1879 | ... | 0·02 | 1·18 | ... | 2·63 | 4·29 | 7·76 | 13·43 | 22·53 | 8·03 | 0·01 | 2·26 | 62·14 |
| 1880 | 0·03 | 1·56 | 0·01 | 1·38 | 6·10 | 11·28 | 9·96 | 26·77 | 7·66 | 14·39 | 2·03 | ... | 81·17 |
| 1881 | ... | ... | 3·55 | 1·20 | 2·77 | 7·28 | 12·03 | 16·94 | 8·68 | 1·88 | 0·07 | 0·34 | 54·74 |
| 1882 | 0·20 | 0·05 | 0·18 | 0·60 | P | P | 18·25 | 7·59 | 8·43 | 8·25 | 1·63 | ... | P |
| 1883 | 0·12 | 0·52 | 2·40 | 0·33 | 2·38 | 19·07 | 15·51 | 18·58 | 8·76 | 2·31 | 0·26 | 2·95 | 73·19 |
| Mean | 0·41 | 0·72 | 1·21 | 2·80 | 3·17 | 10·17 | 14·38 | 14·51 | 11·12 | 10·91 | 2·30 | 0·68 | 72·38 |
| 1884 | 1·17 | 1·81 | 0·09 | ... | 0·24 | 8·38 | 12·08 | 8·37 | 11·86 | 11·16 | 0·09 | 0·05 | 55·30 |
| 1885 | ... | 3·81 | 0·14 | 0·06 | 5·86 | 3·56 | 8·22 | 7·78 | 9·60 | 8·07 | 2·23 | 1·23 | 50·56 |
| 1886 | 0·18 | ... | 3·12 | ... | 4·74 | 7·90 | 17·78 | 7·23 | 15·01 | 5·47 | 1·34 | 1·25 | 64·02 |
| Mean | 0·42 | 0·89 | 1·19 | 2·38 | 3·24 | 9·61 | 14·12 | 13·50 | 11·28 | 10·51 | 2·13 | 0·71 | 69·98 |

No. 210. POOREE.

Latitude N. 19° 48′. Longitude E. 85° 52′. Elevation 15 feet.

Administration: BENGAL. Rainfall Province No. XI.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1848 | P | P | P | P | P | P | 7·80 | 7·25 | 2·80 | 14·17 | 1·30 | ... | P |
| 1849 | 1·25 | ... | 0·20 | 0·20 | 0·20 | 7·90 | 4·70 | 8·10 | 7·20 | 3·90 | ... | 11·80 | 45·45 |
| 1850 | ... | 0·30 | ... | 0·50 | ... | 8·30 | 14·00 | 2·50 | 6·80 | 11·70 | 1·80 | ... | 45·90 |
| 1851 | .... | 0·40 | ... | 1·00 | 0·50 | 4·50 | 14·50 | 7·35 | 4·45 | 9·85 | 5·00 | ... | 47·55 |
| 1852 | 0·15 | ... | 5·70 | 2·10 | P | P | P | P | P | P | P | P | P |
| 1853 | Not on record. | | | | | | | | | | | | |
| 1854 | ... | 1·00 | 0·30 | P | P | 3·50 | 18·90 | 17·90 | 17·40 | P | 1·10 | ... | P |
| 1855 | 2·60 | P | P | P | P | P | P | P | P | P | P | P | P |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | ... | ... | P | 0·20 | 13·00 | 16·40 | 19·50 | 20·00 | 4·50 | ... | ... | P |
| 1861 | ... | ... | 1·40 | 0·50 | 2·70 | 4·60 | 6·10 | 29·00 | 14·10 | 6·10 | P | ... | P |
| 1862 | Not on record. | | | | | | | | | | | | |
| 1863 | ... | 3·60 | ... | 0·60 | 2·10 | 7·30 | 4·50 | 13·25 | 15·30 | 7·80 | 6·45 | ... | 60·90 |
| 1864 | ... | 5·05 | 0·10 | ... | 0·40 | 9·25 | 4·70 | 5·50 | 8·60 | 6·20 | P | ... | P |
| 1865 | ... | 1·80 | 0·80 | ... | 13·00 | 5·60 | 4·30 | 5·60 | 5·20 | ... | ... | ... | 36·30 |
| 1866 | ... | 3·90 | ... | 6·00 | 2·60 | 6·20 | 6·70 | 28·60 | 12·10 | 11·10 | ... | ... | 77·20 |
| 1867 | ... | ... | ... | 4·20 | 4·60 | 8·20 | 13·40 | 14·70 | 10·60 | 14·30 | ... | ... | 70·00 |
| 1868 | 0·05 | 3·60 | 0·07 | 1·70 | 5·40 | 11·00 | 10·90 | 12·90 | 5·05 | 0·30 | ... | ... | 50·97 |
| 1869 | ... | 0·40 | 0·20 | 0·10 | 0·30 | 7·42 | 9·54 | 7·74 | 12·48 | 6·69 | ... | ... | 44·87 |
| 1870 | ... | ... | 0·21 | ... | ... | 2·99 | 7·84 | 12·24 | 6·58 | 10·95 | 2·63 | ... | 43·44 |
| 1871 | ... | 1·64 | 1·80 | 6·59 | 1·79 | 10·63 | 13·94 | 6·14 | 12·39 | 1·40 | ... | ... | 56·32 |
| 1872 | ... | 0·15 | ... | 0·03 | 0·82 | 23·75 | 8·71 | 10·70 | 7·04 | 16·19 | 7·75 | ... | 75·14 |
| 1873 | ... | ... | 1·11 | 0·85 | 4·19 | 2·58 | 8·51 | 15·81 | 9·21 | 12·53 | 1·19 | 1·74 | 57·72 |
| 1874 | 0·66 | 1·00 | 0·05 | ... | 0·35 | 10·84 | 11·78 | 14·91 | 4·87 | 9·62 | 7·54 | 0·16 | 61·78 |
| 1875 | 2·15 | ... | ... | 0·40 | 4·28 | 5·51 | 17·44 | 8·00 | 11·37 | 15·01 | ... | ... | 64·16 |
| 1876 | ... | ... | 0·02 | ... | 2·08 | 2·45 | 6·83 | 7·30 | 9·61 | 6·64 | ... | ... | 34·93 |
| 1877 | 0·04 | 3·13 | 0·68 | 1·91 | 3·44 | 4·91 | 6·46 | 3·15 | 6·70 | 4·51 | 0·22 | ... | 35·15 |
| 1878 | ... | ... | 0·12 | 0·06 | 1·99 | 1·56 | 7·44 | 8·93 | 13·56 | 14·08 | 5·98 | 0·94 | 54·66 |
| 1879 | ... | ... | 1·38 | ... | 2·98 | 4·35 | 13·04 | 12·73 | 12·11 | 4·56 | 0·85 | 1·57 | 53·57 |
| 1880 | 0·11 | 0·32 | ... | ... | 3·54 | 23·89 | 15·17 | 16·38 | 15·14 | 10.63 | 2·36 | 0·04 | 87·58 |
| 1881 | ... | ... | 0·83 | 0·01 | 3·96 | 11·48 | 13·96 | 8·92 | 6·30 | 4·37 | ... | ... | 49·83 |
| 1882 | ... | ... | ... | 0·51 | 3·65 | 1·60 | 9·91 | 8·67 | 7·54 | 7·95 | 3·71 | 0·39 | 43·93 |
| 1883 | 0·04 | 0·19 | 1·50 | ... | 0·48 | 18·54 | 13·86 | 4·57 | 13·61 | 4·85 | 1·44 | 2·10 | 61·18 |
| Mean | 0·24 | 0·95 | 0·59 | 1·05 | 2·52 | 8·22 | 10·40 | 11·37 | 9·93 | 8·14 | 1·90 | 0·67 | 55·98 |
| 1884 | 0·17 | 2·94 | 0·08 | 0·08 | 2·53 | 8·03 | 11·58 | 6·98 | 15·10 | 17·13 | 0·01 | 0·38 | 65·01 |
| 1885 | ... | 5·07 | 0·10 | ... | 4·58 | 1·59 | 3·65 | 6·60 | 6·05 | 5·73 | 3·74 | 1·05 | 38·16 |
| 1886 | 0·12 | ... | 1·69 | ... | 3·38 | 7·13 | 10·55 | 6·18 | 14·78 | 6·14 | 2·70 | 3·88 | 56·55 |
| Mean | 0·23 | 1·11 | 0·59 | 0·94 | 2·62 | 7·95 | 10·23 | 10·91 | 10·13 | 8·30 | 1·93 | 0·78 | 55·72 |

No. 211. DIBRUGARH.

Latitude N. 27° 29′. Longitude E. 94° 58′. Elevation 405 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | P | P | P | P | P | 20·16 | 16·15 | 21·47 | 12·11 | 6·11 | 0·01 | 1·86 | P |
| 1849 | 1·88 | 1·54 | 5·48 | 9·98 | 16·40 | 15·80 | 19·43 | 19·42 | 12·67 | 13·77 | 3·17 | 6·57 | 126·11 |
| 1850 | 0·84 | 3·41 | 3·74 | 7·14 | 14·27 | 17·15 | 15·40 | 20·21 | 20·64 | 6·11 | 5·22 | 1·12 | 115·25 |
| 1851 | 0·61 | 5·49 | 2·28 | 8·43 | 14·25 | 11·96 | 13·71 | 18·47 | 12·58 | 17·90 | 0·01 | 0·20 | 105·89 |
| 1852 | 1·76 | 3·26 | 7·89 | 11·89 | 12·92 | 22·30 | 22·33 | 15·13 | 16·72 | 7·90 | 2·40 | 0·25 | 124·75 |
| 1853 | 0·90 | 1·33 | P | P | P | P | P | P | 14·26 | 4·13 | 1·20 | ... | P |
| 1854 | 0·86 | P | P | 13·53 | P | P | P | P | 5·69 | 7·04 | 3·56 | ... | P |
| 1855 | 1·24 | 1·84 | 6·15 | 7·95 | 20·51 | 10·60 | 10·03 | 11·01 | 4·61 | 5·68 | 2·04 | 0·33 | 81·99 |
| 1856 | 2·85 | 1·76 | 5·93 | 8·86 | 13·54 | P | P | P | P | P | P | P | P |
| 1857 to 1867 | Not on record. | | | | | | | | | | | | |
| 1868 | P | P | P | P | P | 33·36 | 32·50 | 30·00 | 27·80 | 2·99 | 1·00 | 1·10 | P |
| 1869 | Not on record. | | | | | | | | | | | | |
| 1870 | ... | 0·30 | 12·28 | 6·22 | 12·49 | 35·33 | 18·18 | 14·54 | 12·77 | 4·18 | 2·77 | ... | 119·06 |
| 1871 | 0·77 | 3·24 | 4·43 | 5·50 | 7·19 | 25·54 | 22·19 | 13·41 | 15·95 | 5·49 | 3·84 | 0 70 | 108·25 |
| 1872 | 1·65 | 2·37 | 5·35 | 14·70 | 9·30 | 10·70 | 21·84 | 20·63 | 19·02 | 5·05 | 1·17 | 0·40 | 112·18 |
| 1873 | 0·85 | 4·15 | 3·47 | 8·22 | 8·93 | 18·18 | 20·13 | 14·63 | 8·69 | 3·45 | 0·07 | 0·21 | 91·00 |
| 1874 | 1·53 | 3·40 | 6·68 | 8·80 | 26·46 | 20·83 | 20·72 | 25·56 | 17·84 | 5·14 | 1·85 | 0·18 | 138·99 |
| 1875 | 2·76 | 2·67 | 5·61 | 16·65 | 6·92 | 17·08 | 21·38 | 22·48 | 5·28 | 2·41 | 0·77 | 0·28 | 104·29 |
| 1876 | 2·43 | 2·61 | 5·02 | 8·48 | 11·36 | 21·36 | 25·20 | 11·18 | 12·45 | 6·43 | 1·45 | ... | 107·97 |
| 1877 | 0·77 | 2·47 | 6·22 | 7·04 | 15·58 | 17·36 | 19·91 | 8·15 | 21·73 | 2·41 | 1·86 | 5·50 | 109·00 |
| 1878 | 0·86 | 3·12 | 6·37 | 6·81 | 9·55 | 21·53 | 23·04 | 24·27 | 14·64 | 4·54 | 0·92 | 0·06 | 115·69 |
| 1879 | 0·48 | 1·74 | 1·78 | 6·07 | 32·64 | 20·60 | 22·83 | 16·56 | 12·17 | 4·06 | ... | ... | 118·93 |
| 1880 | 3·24 | 4·22 | 8·62 | 16·12 | 7·03 | 16·99 | 26·79 | 21·80 | 4 42 | 9·51 | 0·79 | 0·56 | 120·09 |
| 1881 | ... | 1·24 | 4·96 | 13·01 | 13·58 | 15·53 | 12·55 | 19·48 | 27·61 | 7·36 | 0·81 | 0·15 | 116·28 |
| 1882 | 1·22 | 3·24 | 7·37 | 11·06 | 7·68 | 11·03 | 11·65 | 21·47 | 12·44 | 10·88 | 0·94 | 0·67 | 99·65 |
| 1883 | 1·56 | 1·25 | 4·55 | 8·26 | 15·34 | 15·02 | 22·37 | 16·61 | 15·71 | 2·64 | 0·42 | 0·53 | 104·26 |
| Mean | 1·32 | 2·60 | 5·71 | 9·75 | 13·80 | 18·97 | 19·92 | 18·40 | 14·25 | 6·33 | 1·58 | 0·90 | 113·53 |
| 1884 | 1·20 | 2·38 | 7·87 | 14·17 | 12·16 | 16·40 | 11·52 | 13·84 | 8·25 | 2·59 | 0·51 | 0·82 | 91·71 |
| 1885 | 2·01 | 1·16 | 2·92 | 9·76 | 15·68 | 6·55 | 21·23 | 12·02 | 18·17 | 4·35 | 0·56 | 0·94 | 95·35 |
| 1886 | 2·19 | 0·63 | 6·38 | 9·89 | 5·36 | 17·56 | 22·74 | 19·97 | 16·92 | 5·40 | ... | 2·37 | 109·41 |
| Mean | 1·38 | 2·45 | 5·71 | 9·94 | 13·44 | 18·29 | 19·74 | 18·01 | 14·27 | 6·08 | 1·44 | 0·95 | 111·70 |

No. 212. SIBSAGAR.

Latitude N. 26° 59′. Longitude E. 94° 40′. Elevation 333 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | | P | P | P | P | 14·62 | 7·44 | 9·67 | 13·10 | 5·05 | ... | 1·97 | P |
| 1849 | 0·61 | 1·71 | 6·65 | 14·17 | 11·26 | 13·04 | 10·86 | 12·78 | 4·15 | 5·88 | 0·97 | 1·25 | 83·33 |

SIBSAGAR—*continued*.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1850 | ... | 2·90 | 5·90 | 6·89 | 12·37 | 11·07 | 13·77 | 13·75 | 16·10 | 3·35 | 7·34 | 1·04 | 94·48 |
| 1851 | 0·50 | 3·38 | 1·60 | 8·85 | 12·29 | 14·93 | 10·41 | 16·23 | 8·33 | 6·20 | ... | 0·33 | 83·05 |
| 1852 | 1·00 | 1·00 | 7·39 | 9·25 | 8·70 | 15·08 | 16·30 | 12·30 | 17·55 | 3·40 | 0·55 | 1·00 | 93·52 |
| 1853 | 0·60 | 2·40 | 8·77 | 7·35 | 5·60 | 12·25 | 7·75 | 20·10 | 13·65 | 3·70 | 1·58 | ... | 83 75 |
| 1854 | ... | 1·61 | 1·30 | ? | 4·10 | 12·60 | 7·10 | 18·30 | 7·50 | 9·20 | 3·30 | ... | ? |
| 1855 to 1861 | Not on record. | | | | | | | | | | | | |
| 1862 | 0·20 | 3·60 | 2·60 | 8·40 | 5·30 | 12·50 | 14·10 | 32·90 | 14·30 | 13·40 | 1·20 | ... | 108·50 |
| 1803 | 1·40 | 2·00 | ... | 11·50 | 12·60 | 22·50 | 10·30 | 16·50 | 13·90 | 7·80 | 0·70 | ... | 99·00 |
| 1864 | 2·20 | 4·10 | 4·60 | 12·30 | 13·10 | 24·30 | 29·60 | 12·50 | 14·00 | 3·40 | 0·40 | 1·20 | 121·70 |
| 1865 | 0·80 | 2·70 | 1·30 | 19·50 | 9·00 | 13·30 | 8·80 | 11·50 | 4·40 | 3·50 | 0·10 | 1·00 | 75·90 |
| 1806 | 1·60 | 2·20 | 4·20 | 4·40 | 6·50 | 11·40 | 11·70 | 12·70 | 11·50 | 6·00 | ... | ... | 72·20 |
| 1867 | 1·80 | 0·60 | 3·30 | 8·30 | 8·40 | 10·60 | 16·30 | 13·20 | 8·90 | 4·40 | 3·90 | ... | 79·70 |
| 1808 | ... | 4·20 | 2·40 | 16·00 | 4·80 | 22·60 | 22·30 | 20·60 | 13·00 | 1·70 | 0·80 | 0·50 | 108·90 |
| 1869 | 4·20 | 3·40 | 4·20 | 8·60 | 20·10 | 12·80 | 22·10 | 14·30 | 15·10 | 1·80 | ... | 0·30 | 106·90 |
| 1870 | 0·11 | 1·46 | 2·59 | 5·18 | 14·88 | 20·28 | 18·01 | 12·03 | 16·06 | 5·79 | 1·54 | 0·08 | 98·61 |
| 1871 | 0·25 | 2·82 | 6·25 | 10·35 | 9·15 | 8·98 | 31·06 | 35 89 | 6·68 | 5·52 | 3·36 | 0·76 | 121 07 |
| 1872 | 0·84 | 3·79 | 6·01 | 13·99 | 8·71 | 9·70 | 16·15 | 19·84 | 13·93 | 8·54 | 1·32 | 0·85 | 103·67 |
| 1873 | 1·21 | 2·56 | 7·77 | 7·93 | 9·33 | 12·32 | 10·76 | 10·19 | 9·84 | 1·17 | ... | 0·19 | 73·27 |
| 1874 | 2·31 | 3·25 | 4·45 | 13·68 | 29·75 | 26·28 | 16·05 | 17·82 | 5·51 | 6·15 | 0·93 | 0·07 | 126·25 |
| 1875 | 1·58 | 1·75 | 7·13 | 19·17 | 6·20 | 14·64 | 17·23 | 20·73 | 7·24 | 4·17 | 2·30 | 1·14 | 103·28 |
| 1876 | 2·50 | 1·32 | 3·89 | 8·13 | 11·82 | 11·13 | 18·64 | 11·65 | 8·55 | 4·37 | 1·13 | ... | 83·73 |
| 1877 | 0·97 | 0·86 | 5·02 | 7·05 | 13·01 | 12·43 | 17·86 | 16·58 | 11·36 | 2·78 | 3·82 | 0·26 | 92·60 |
| 1878 | 0·54 | 1·84 | 2·96 | 7·33 | 11·95 | 11·73 | 13·50 | 16·78 | 13·71 | 4·17 | 1·03 | 0·03 | 85·57 |
| 1879 | 1·60 | 0·62 | 1·55 | 7·51 | 21·01 | 17·28 | 19·18 | 16·40 | 10·63 | 3 98 | ... | 0·38 | 106·14 |
| 1880 | 1·66 | 1·42 | 8·56 | 11·14 | 6·78 | 23·52 | 21·22 | 9·97 | 5·68 | 7·15 | 0·76 | 1·20 | 99·06 |
| 1881 | 0·66 | 1·85 | 2·29 | 13·15 | 12·62 | 16·18 | 16·22 | 11·45 | 17·91 | 2·64 | 0·35 | ... | 95·32 |
| 1882 | 1·63 | 2·82 | 5·19 | 8·98 | 4·02 | 9·29 | 10·26 | 15·13 | 12·08 | 10·83 | 1·29 | 0·67 | 82·19 |
| 1883 | 1·77 | 0·71 | 5·83 | 3·46 | 9·46 | 7·67 | 23·34 | 16·45 | 12·21 | 3·03 | 0·23 | 1·28 | 85·44 |
| Mean | 1·16 | 2·25 | 4·44 | 10·09 | 10·81 | 14·66 | 15·80 | 16·17 | 11·48 | 5·14 | 1·36 | 0·53 | 93·89 |
| 1884 | 0·59 | 2·29 | 6·32 | 4·29 | 13·46 | 10·70 | 9·40 | 20·76 | 5·35 | 3·75 | 1·71 | 1·10 | 79·72 |
| 1885 | 1·49 | 1·77 | 3·47 | 14·01 | 15·36 | 4·64 | 18·42 | 9·05 | 23·66 | 6·53 | 0·64 | 1·14 | 100·18 |
| 1886 | 0·56 | 0·90 | 2·73 | 6·96 | 9·89 | 12·01 | 12·73 | 12·76 | 11·14 | 6·18 | 0·11 | 0·78 | 76·75 |
| Mean | 1·13 | 2·19 | 4·41 | 9·93 | 11·02 | 14·14 | 15·59 | 15·98 | 11·66 | 5·17 | 1·31 | 0·58 | 93·11 |

No. 213. NAZIRAH.

Latitude N. 26° 56′. Longitude E. 94° 48′. Elevation 460 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | 1·90 | 1·45 | 2·00 | 6·90 | 8·18 | 12·83 | 14·66 | 7·57 | 8·89 | 1·46 | 0·48 | 1·28 | 67·60 |
| 1862 | 1·15 | 1·97 | 3·66 | 7·16 | 3·07 | 8·33 | 12·27 | 22·94 | 9·85 | 10·67 | 0·76 | 0 63 | 82·46 |
| 1863 | 0·91 | 1·82 | 0·05 | 8·65 | 8·93 | 19·33 | 7·97 | 14·32 | 13·67 | 3·66 | 0·64 | ? | 79·95 |

NAZIRAH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1864 | P | P | P | P | P | 10·15 | 15·40 | 13·47 | 9·41 | 2·30 | 0·42 | 1·38 | P |
| 1865 | 0·33 | 1·88 | 0·90 | 15·47 | 7·94 | 16·73 | P | 16·48 | 3·70 | 5·62 | 0·16 | 1·93 | P |
| 1866 | 2·68 | 2·53 | 4·12 | 8·62 | 9·86 | 9·75 | 14·22 | P | P | P | ... | 0·27 | P |
| 1867 | 1·84 | 1·35 | 2·85 | 8·23 | 8·26 | 10·05 | 16·92 | 21·66 | 13·18 | 2·70 | 2·66 | ... | 89·70 |
| 1868 | ... | 5·96 | 2·36 | 17·34 | 3·42 | 19·26 | 16·03 | 9·76 | 12·14 | 2·12 | 0·10 | 0·51 | 89·00 |
| 1869 | 4·14 | 2·66 | 7·31 | 6·10 | 12·20 | 16·42 | 16·40 | 16·84 | 9·42 | 11·75 | ... | 0·75 | 103·99 |
| 1870 | 0·64 | 1·36 | 2·25 | 4·13 | 8·13 | 19·34 | 8·17 | 18·73 | 12·16 | 1·74 | 1·98 | 0·04 | 78·67 |
| 1871 | 0·11 | 2·66 | 5·51 | 9·14 | 10·88 | 12·27 | 23·74 | 24·24 | 14·63 | 7·45 | 3·45 | 0·44 | 114·52 |
| 1872 | 0·59 | 2·13 | 4·81 | 8·03 | 7·52 | 8·40 | 19·89 | 11·24 | 9·82 | 6·88 | 0·93 | 0·45 | 80·69 |
| 1873 | 0·97 | 4·30 | 5·96 | 7·28 | 6·76 | 15·24 | 11·01 | 12·15 | 10·58 | 0·87 | ... | 0·23 | 75·35 |
| 1874 | 1·83 | 5·09 | 5·42 | 13·12 | 29·66 | 15·40 | 23·06 | 24·18 | 7·03 | 8·87 | 0·07 | 0·16 | 133·89 |
| 1875 | 2·73 | 1·27 | 8·06 | 14·76 | 5·82 | 11·81 | 15·24 | 24·46 | 4·81 | 2·96 | 1·12 | 1·23 | 94·27 |
| 1876 | 1·54 | 1·21 | 4·43 | 6·17 | 11·84 | 13·38 | 15·92 | 11·50 | 10·64 | 4·24 | 0·18 | ... | 81·05 |
| 1877 | 1·02 | 0·77 | 6·71 | 3·99 | 8·28 | 11·46 | 12·56 | 8·70 | 10·19 | 1·37 | 2·35 | 0·18 | 67·58 |
| Mean | 1·40 | 2·40 | 4·15 | 9·07 | 9·42 | 13·54 | 15·22 | 16·14 | 10·01 | 4·67 | 0·90 | 0·59 | 87·51 |

No. 214. TEZPUR.

Latitude N. 26° 37′. Longitude E. 92° 50′. Elevation 303 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1849 | P | P | P | 7·05 | 11·80 | P | P | P | 7·70 | 3·20 | 2·60 | 0·90 | P |
| 1850 | ... | 2·00 | 2·70 | 4·20 | 6·60 | 21·58 | 21·50 | 8·24 | 9·90 | 1·00 | 3·30 | 0·80 | 81·82 |
| 1851 | 0·40 | 1·40 | ... | 4·80 | P | P | P | P | 4·50 | 3·00 | 0·40 | 0·30 | P |
| 1852 | 0·50 | 0·40 | 4·60 | 9·40 | 8·26 | P | P | P | 23·00 | 1·00 | 1·50 | 0·80 | P |
| 1853 | 0·60 | P | ... | 2·70 | 5·00 | P | 18·50 | 12·17 | 20·50 | 2·50 | 2·00 | ... | P |
| 1854 | 0·50 | P | 2·00 | P | P | 16·50 | 6·50 | 5·00 | 4·00 | 5·50 | 2·25 | ... | P |
| 1855 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | 0·30 | 4·60 | 6·30 | 11·20 | 11·70 | 13·70 | 16·40 | 7·20 | 6·70 | P | P | P |
| 1861 | ... | ... | P | 14·10 | 8·60 | 15·60 | 20·50 | 16·10 | 5·50 | 2·00 | 0·20 | 0·40 | P |
| 1862 | 0·20 | 2·30 | 2·80 | 8·30 | 2·50 | 14·20 | 12·10 | 20·60 | 11·30 | P | P | ... | P |
| 1863 | P | 0·40 | ... | 6·30 | 15·60 | 11·60 | 13·60 | 10·50 | 7·70 | 4·00 | ... | 0·10 | 69·80 P |
| 1864 | ... | ... | ... | 5·40 | 8·20 | 5·00 | 14·90 | 9·20 | 12·50 | 3·00 | 0·40 | 5·00 | 63·60 |
| 1865 | ... | 0·20 | 0·40 | 2·80 | 15·10 | 18·40 | 21·80 | 7·90 | 4·00 | 3·00 | 1·10 | 2·00 | 76·70 |
| 1866 | 2·10 | 3·40 | 0·80 | 4·70 | 10·70 | 28·40 | 21·00 | 15·80 | 4·20 | 5·90 | ... | ... | 97·00 |
| 1867 | 2·70 | 0·40 | 7·70 | 8·20 | 6·00 | 11·40 | 23·80 | 10·40 | 7·60 | 2·00 | 3·00 | ... | 83·20 |
| 1868 | 0·10 | 1·79 | 0·50 | 7·23 | 2·76 | 6·82 | 10·43 | 16·48 | 6·94 | 0·77 | 0·53 | 0·63 | 54·98 |
| 1869 | 1·06 | 1·20 | 0·42 | 5·10 | 14·50 | 9·52 | 13·36 | 7·29 | 12·25 | 0·53 | 1·34 | 0·15 | 66·72 |
| 1870 | ... | 1·45 | 1·23 | 5·39 | 17·02 | 25·19 | 8·99 | 9·62 | 17·74 | 2·97 | 0·13 | ... | 89·73 |
| 1871 | ... | 0·69 | 1·67 | 12·22 | 11·26 | 15·28 | 16·79 | 18·89 | 6·82 | 3·17 | 2·70 | ... | 83·49 |
| 1872 | 0·45 | 0·42 | 2·21 | 4·62 | 11·28 | 6·94 | 14·36 | 15·37 | 14·52 | 3·00 | 0·24 | 0·09 | 73·50 |
| 1873 | 0·40 | 0·71 | 2·57 | 4·88 | 6·82 | 16·83 | 18·74 | 6·36 | 6·92 | 1·66 | ... | ... | 65·89 |
| 1874 | 0·18 | 1·73 | 3·74 | 8·22 | 21·29 | 5·28 | 9·83 | 16·93 | 6·83 | 5·25 | ... | ... | 79·28 |

TEZPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | 3·80 | 0·20 | 3·57 | 4·73 | 6·07 | 16·38 | 17·41 | 19·09 | 9·53 | 1·59 | 0·53 | 1·13 | 84·03 |
| 1876 | 0·53 | 0·11 | 2·17 | 4·31 | 8·32 | 12·37 | 12·33 | 8·26 | 4·82 | 4·11 | 0·63 | 0·22 | 58·18 |
| 1877 | 0·83 | 0·85 | 7·31 | 4·29 | 11·75 | 7·80 | 19·80 | 9·66 | 7·68 | 1·50 | 1·10 | 0·16 | 72·73 |
| 1878 | 0·03 | 1·72 | 2·31 | 5·56 | 13·52 | 11·85 | 15·66 | 13·33 | 13·36 | 4·21 | 0·46 | ... | 82·01 |
| 1879 | 0·04 | 0·15 | 0·03 | 5·02 | 11·57 | 16·63 | 27·99 | 15·50 | 11·15 | 5·29 | ... | 0·30 | 93·67 |
| 1880 | 1·81 | 0·53 | 6·89 | 7·60 | 4·46 | 23·95 | 15·79 | 7·92 | 3·35 | 3·20 | 0·75 | 3·25 | 79·50 |
| 1881 | ... | 0·30 | 1·40 | 7·64 | 15·53 | 16·36 | 20·44 | 18·72 | 13·45 | 1·52 | 0·40 | 0·85 | 96·61 |
| 1882 | 1·58 | 1·77 | 2·81 | 4·44 | 7·65 | 8·86 | 10·80 | 16·03 | 15·15 | 6·05 | 0·62 | 0·40 | 76·16 |
| 1883 | ... | ... | 1·53 | 3·26 | 16·11 | 10·82 | 14·50 | 15·85 | 8·66 | 0·09 | ... | 1·42 | 72·24 |
| Mean | 0·64 | 0·90 | 2·36 | 6·16 | 10·34 | 14·05 | 15·89 | 12·87 | 9·63 | 3·02 | 0·93 | 0·65 | 77·44 |
| 1884 | 0·35 | 0·96 | 2·44 | 5·32 | 7·50 | 9·98 | 7·14 | 14·60 | 3·46 | 2·82 | 0·36 | 0·15 | 51·28 |
| 1885 | 0·10 | 0·15 | 3·12 | 7·59 | 7·35 | 14·15 | 13·43 | 9·54 | 8·80 | 4·07 | ... | 0·76 | 69·06 |
| 1886 | ... | 0·10 | 0·51 | 5·25 | 4·30 | 10·10 | 20·14 | 10·85 | 13·08 | 8·14 | 0·21 | 0·20 | 72·88 |
| Mean | 0·59 | 0·85 | 2·32 | 6·15 | 9·96 | 13·78 | 15·66 | 12·65 | 9·52 | 3·19 | 0·86 | 0·63 | 76·16 |

No. 215. NOWGONG.

Latitude N. 26° 21′. Longitude E. 92° 44′. Elevation 221 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | ? | ? | ? | ? | 2·55 | 2·70 | 11·50 | 9·25 | 3·00 | 3·75 | ... | ... | ? |
| 1849 | 2·30 | 3·50 | 7·90 | 9·50 | 12·80 | 12·80 | 16·80 | 12·40 | 5·65 | 2·50 | 1·20 | 1·30 | 88·65 |
| 1850 | ... | 3·10 | 4·40 | 5·70 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1851 | ? | 2·85 | 2·10 | 8·55 | 8·85 | 17·50 | 7·35 | 22·20 | 4·65 | 7·00 | 0·40 | 2·00 | 83·45? |
| 1852 | 0·35 | 0·40 | 2·80 | 5·78 | 9·75 | 13·05 | 11·00 | 6·60 | 15·40 | 3·82 | 1·40 | 0·52 | 70·87 |
| 1853 | 0·56 | 0·60 | ... | 2·50 | 4·95 | 19·37 | 17·55 | 18·31 | 13·88 | 3·67 | 3·02 | ... | 84·41 |
| 1854 | ... | 1·34 | 1·72 | 8·85 | 4·90 | 19·20 | 9·80 | 16·60 | 10·19 | 5·90 | ? | ? | 78·50? |
| 1855 | 1·00 | 1·20 | 1·60 | 5·95 | 6·95 | 11·37 | 8·87 | 11·70 | 11·55 | 2·70 | 0·10 | ... | 62·99 |
| 1856 | 1·17 | ... | 1·60 | 3·63 | 13·50 | 20·65 | 14·50 | 5·70 | 6·87 | 4·75 | 0·40 | ... | 72·77 |
| 1857 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | ... | 8·50 | 4·50 | 30·50 | 9·80 | ? | 15·80 | ? | 15·00 | ? | ? | ? |
| 1861 | Not on record. | | | | | | | | | | | | |
| 1862 | ... | ... | 0·30 | 5·50 | 3·40 | 11·00 | 29·00 | 20·40 | 14·30 | 8·70 | 0·50 | ... | 93·10 |
| 1863 | ? | ? | ? | ? | 6·00 | 10·00 | 5·00 | 8·00 | 14·30 | ... | ... | ... | ? |
| 1864 | ... | ... | ... | 3·50 | ? | 5·00 | 16·50 | 4·00 | 12·00 | 5·50 | 1·00 | ... | ? |
| 1865 | ... | ... | ... | 3·00 | 2·00 | 8·00 | 14·50 | 12·00 | 11·00 | ... | ... | ... | 50·50 |
| 1866 | 1·50 | 4·75 | 1·50 | 8·50 | 16·00 | 20·00 | ? | 21·00 | 14·00 | 4·50 | ... | 0·75 | ? |
| 1867 | ? | ? | 2·75 | 4·75 | 14·00 | 25·50 | 21·30 | 11·70 | 7·20 | 1·50 | 4·00 | ... | ? |
| 1868 | 1·00 | 1·30 | 0·60 | 8·40 | 9·50 | 16·60 | 19·50 | 17·60 | 19·70 | 4·00 | ... | ... | 98·20 |
| 1869 | 7·70 | ... | 2·50 | 6·50 | 5·80 | 8·80 | 15·60 | 20·30 | 13·70 | 6·60 | ... | ... | 87·50 |
| 1870 | ... | 0·70 | ... | 5·40 | 11·00 | 21·90 | 11·40 | 9·90 | 15·30 | 2·20 | ... | ... | 77·80 |

NOWGONG—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | ... | 0·40 | 1·74 | 8·38 | 10·56 | 9·92 | 22·27 | 43·36 | 19·22 | 10·16 | 0·80 | ... | 126·81 |
| 1872 | 2·40 | 3·39 | 4·88 | 14·65 | 24·91 | 13·52 | 26·53 | 23·59 | 13·72 | 5·28 | 0·20 | ... | 133·07 |
| 1873 | 0·05 | 0·93 | 2·38 | 4·12 | 6·07 | 12·64 | 25·27 | 11·79 | 7·31 | 0·05 | ... | ... | 70·61 |
| 1874 | 0·60 | 2·32 | 3·83 | 3·07 | 13·19 | 6·80 | 11·86 | 19·15 | 14·83 | 4·11 | ... | ... | 79·76 |
| 1875 | 1·56 | 0·52 | 2·47 | 3·06 | 4·09 | 18·34 | 13·69 | 18·34 | 6·47 | 0·58 | 0·18 | 0·38 | 69·59 |
| 1876 | 0·50 | 0·08 | 1·57 | 2·86 | 9·49 | 13·37 | 14·92 | 8·69 | 7·49 | 4·35 | 0·67 | ... | 63·99 |
| 1877 | 0·86 | 1·12 | 1·42 | 4·92 | 11·27 | 10·31 | 9·44 | 7·26 | 5·42 | 2·55 | 0·10 | 0·24 | 54·91 |
| 1878 | ... | 1·09 | 1·53 | 4·40 | 7·32 | 5·85 | 20·13 | 14·19 | 14·76 | 3·06 | 0·38 | 0·13 | 72·84 |
| 1879 | 0·89 | 0·07 | 0·24 | 2·57 | 7·92 | 15·67 | 34·07 | 12·50 | 14·94 | 3·58 | 0·62 | 0·95 | 94·02 |
| 1880 | 0·81 | 0·33 | 4·95 | 4·97 | 4·33 | 19·08 | 17·11 | 9·17 | 4·77 | 1·81 | ... | 1·20 | 68·53 |
| 1881 | 0·06 | 0·64 | 3·12 | 5·42 | 6·95 | 15·35 | 18·89 | 15·49 | 13·38 | 0·61 | 0·05 | ... | 79·96 |
| 1882 | 0·48 | 1·65 | 4·85 | 3·51 | 11·85 | 11·26 | 5·96 | 13·55 | 5·15 | 12·04 | 0·48 | 0·29 | 71·07 |
| 1883 | 0·68 | 0·18 | 4·83 | 5·79 | 13·04 | 7·47 | 13·78 | 18·89 | 6·59 | 2·06 | ... | 1·11 | 72·32 |
| Mean | 0·87 | 1·12 | 2·44 | 5·61 | 9·81 | 13·32 | 16·00 | 14·82 | 10·89 | 4·27 | 0·53 | 0·31 | 79·99 |
| 1884 | 0·07 | 1·14 | 2·37 | 4·31 | 6·19 | 9·74 | 17·80 | 13·07 | 5·66 | 3·12 | 0·12 | ... | 63·59 |
| 1885 | 0·10 | 0·32 | 4·15 | 6·50 | 8·28 | 16·05 | 13·86 | 14·03 | 8·71 | 1·95 | 0·15 | 0·29 | 74·39 |
| 1886 | ... | 0·03 | 1·71 | 3·91 | 5·79 | 9·07 | 21·10 | 18·06 | 20·21 | 5·37 | 0·05 | 0·04 | 85·34 |
| Mean | 0·79 | 1·06 | 2·46 | 5·54 | 9·53 | 13·17 | 16·15 | 14·84 | 10·95 | 4·20 | 0·49 | 0·29 | 79·47 |

No. 216. GAUHATI.

Latitude N. 26° 11′. Longitude E. 91° 47′. Elevation 370 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | ? | ? | ? | ? | 11·80 | 14·87 | 8·30 | 17·45 | 8·50 | 5·70 | ... | 0·45 | ? |
| 1849 | 1·15 | 1·70 | 2·48 | 3·72 | 9·10 | 9·42 | 17·01 | 8·80 | 8·10 | 2·65 | 0·95 | 1·80 | 66·88 |
| 1850 | ... | 2·45 | 1·15 | 3·25 | 13·48 | 12·64 | 19·50 | 5·68 | 5·61 | ... | 5·02 | 0·25 | 69·03 |
| 1851 | 0·51 | 0·47 | 1·45 | 5·57 | 6·95 | 16·61 | 9·35 | 4·53 | 3·50 | 3·68 | 0·38 | 0·51 | 53·51 |
| 1852 | 0·22 | 0·43 | 4·88 | 13·41 | 7·63 | 21·01 | 19·52 | 6·73 | 8·24 | 2·18 | 0·70 | 0·21 | 85·16 |
| 1853 | 1·05 | 0·12 | 0·70 | 4·00 | 13·80 | 24·00 | 28·58 | 7·60 | 16·22 | 0·85 | 2·23 | ... | 99·15 |
| 1854 | ... | 1·08 | 1·75 | 7·77 | 2·93 | 14·17 | 8·64 | 15·26 | 9·90 | 2·02 | 1·80 | ... | 65·32 |
| 1855 | 1·30 | 1·18 | 1·63 | 8·95 | 9·38 | 12·95 | 4·45 | 5·73 | 11·34 | 0·29 | 0·66 | ... | 57·86 |
| 1856 | 1·23 | ... | 4·63 | 3·27 | 9·16 | 7·46 | 15·62 | 9·90 | 4·43 | 3·48 | 0·05 | ... | 59·23 |
| 1857 | ... | 1·25 | 1·10 | 4·33 | 7·40 | 10·77 | 25·15 | 4·78 | 4·45 | ? | ? | ? | ? |
| 1858 | 0·35 | 0·18 | ? | 4·61 | 24·09 | 17·74 | 7·06 | 19·76 | 8·52 | 4·05 | ... | 0·25 | ? |
| 1859 | ... | 0·07 | 3·00 | 7·05 | 4·61 | 10·65 | 27·92 | 15·42 | 14·85 | 1·25 | ... | ... | 84·82 |
| 1860 | ... | 0·12 | 2·15 | 9·00 | 11·30 | 34·20 | 9·40 | 13·40 | 8·80 | 5·00 | ? | ? | 93·37? |
| 1861 | ... | ... | ? | 7·09 | 12·97 | 18·93 | 20·80 | ? | 11·80 | 3·65 | 0·30 | 0·05 | ? |
| 1862 | ... | 0·30 | 6·75 | 7·50 | 11·55 | 13·30 | ? | 14·05 | ? | 11·90 | ... | ... | ? |
| 1863 | ? | ... | ... | 9·62 | 13·61 | 10·48 | 11·63 | 15·55 | 2·80 | 0·50 | ... | ... | 64·19? |
| 1864 | ? | 4·50 | 1·89 | 6·18 | ... | 7·35 | 10·55 | ? | 10·50 | ? | ? | ... | ? |
| 1865 | ... | ... | ... | 5·15 | 10·60 | 7·25 | 12·30 | 12·80 | 0·12 | ... | ... | ... | 48·22 |
| 1866 | 2·35 | 6·22 | ... | 10·70 | 8·80 | ? | 14·50 | 19·10 | 9·90 | 2·70 | ... | ... | ? |

GAUHATI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | 1·10 | 0·20 | 1·23 | 5·30 | 16·60 | 14·60 | 15·70 | 7·96 | 5·50 | 3·20 | 3·50 | ... | 74·89 |
| 1868 | 0·50 | 1·70 | P | P | P | 4·70 | 11·00 | 7·70 | 9·40 | 0·40 | ... | 0·60 | P |
| 1869 | 1·70 | 1·30 | 2·80 | 4·90 | 12·90 | 8·80 | 11·83 | 5·30 | 12·60 | 1·50 | ... | 0·40 | 64·03 |
| 1870 | ... | 1·37 | 1·00 | 5·80 | 8·00 | 18·58 | 7·92 | 4·84 | 18·31 | 3·97 | ... | ... | 69·79 |
| 1871 | ... | 0·77 | 1·43 | 6·20 | 9·48 | 12·88 | 7·01 | 19·37 | 6·92 | 0·96 | ... | ... | 56·02 |
| 1872 | 1·70 | 0·43 | 2·11 | 2·36 | 11·66 | 12·14 | 13·54 | 15·84 | 12·83 | 6·20 | 0·28 | ... | 79·09 |
| 1873 | 0·11 | 0·53 | 2·97 | 5·96 | 7·91 | 10·57 | 9·94 | 6·78 | 4·92 | 0·32 | ... | ... | 50·01 |
| 1874 | 0·56 | 1·90 | 4·15 | 5·27 | 12·65 | 5·16 | 7·80 | 9·77 | 4·79 | 6·36 | ... | ... | 58·41 |
| 1875 | 1·75 | 0·29 | 3·34 | 2·85 | 3·98 | 18·82 | 9·25 | 12·87 | 0·58 | 0·42 | 0·12 | 0·61 | 54·88 |
| 1876 | 0·27 | 0·16 | 1·16 | 3·54 | 11·83 | 12·47 | 12·69 | 13·54 | 5·67 | 3·72 | 0·78 | ... | 65·83 |
| 1877 | 1·44 | 0·94 | 4·68 | 6·49 | 10·87 | 5·25 | 11·86 | 6·59 | 6·66 | 1·20 | 0·40 | 0·83 | 57·21 |
| 1878 | 0·19 | 1·18 | 3·13 | 3·37 | 11·76 | 7·32 | 8·20 | 16·31 | 9·87 | 3·92 | 2·59 | 0·28 | 68·12 |
| 1879 | 0·12 | 0·39 | 0·64 | 5·36 | 11·15 | 10·41 | 15·72 | 17·11 | 14·43 | 3·01 | ... | 0·75 | 79·09 |
| 1880 | 0·90 | 0·81 | 7·28 | 5·25 | 7·38 | 19·51 | 7·80 | 6·32 | 6·08 | 6·32 | 0·75 | 1·47 | 70·07 |
| 1881 | ... | 0·34 | 3·96 | 6·45 | 10·23 | 11·38 | 6·97 | 16·50 | 15·20 | 1·09 | ... | ... | 72·12 |
| 1882 | 0·03 | 1·29 | 6·69 | 2·39 | 7·91 | 8·79 | 7·58 | 15·00 | 2·45 | 13·26 | 1·36 | ... | 66·75 |
| 1883 | 0·68 | 0·10 | 0·66 | 5·15 | 18·22 | 9·20 | 6·79 | 8·64 | 4·85 | 3·47 | ... | 1·50 | 59·26 |
| Mean | 0·58 | 0·96 | 2·43 | 5·82 | 10·33 | 12·98 | 12·63 | 11·12 | 8·25 | 3·21 | 0·66 | 0·29 | 69·26 |
| 1884 | 0·53 | 1·51 | 3·08 | 4·18 | 5·10 | 8·12 | 7·05 | 16·02 | 1·98 | 2·67 | ... | ... | 50·24 |
| 1885 | 0·35 | 0·29 | 5·29 | 6·56 | 9·99 | 11·04 | 15·58 | 10·00 | 9·69 | 1·29 | ... | 0·52 | 70·60 |
| 1886 | 0·18 | 0·01 | 1·21 | 4·03 | 8·46 | 15·33 | 17·85 | 9·74 | 6·60 | 2·58 | ... | 0·23 | 66·22 |
| Mean | 0·56 | 0·94 | 2·50 | 5·75 | 10·14 | 12·87 | 12·69 | 11·19 | 8·08 | 3·13 | 0·61 | 0·29 | 68·75 |

No. 217. GOALPARA.

Latitude N. 26° 11′. Longitude E. 90° 40′. Elevation 386 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1849 | 0·50 | 1·20 | 1·20 | 2·00 | 15·45 | 19·25 | 28·75 | 10·40 | 4·85 | 14·50 | 0·25 | 0·90 | 99·25 |
| 1850 | ... | 0·40 | 2·00 | 1·25 | 10·60 | 13·10 | 28·45 | 13·85 | 11·65 | 1·65 | 2·10 | 0·30 | 84·75 |
| 1851 | 0·70 | 0·70 | 1·05 | 10·20 | 15·10 | 42·55 | 17·90 | 11·65 | 7·40 | 8·85 | ... | ... | 116·10 |
| 1852 | ... | 0·85 | 5·45 | 1·50 | 11·20 | 10·15 | 17·00 | 7·00 | 15·56 | 2·80 | 1·00 | 1·80 | 74·31 |
| 1853 | 0·50 | 0·50 | 0·50 | 0·50 | 5·20 | 9·50 | 14·00 | 15·60 | 10·50 | ... | ... | ... | 56·80 |
| 1854 | 0·40 | 0·60 | 0·70 | 10·30 | 7·00 | 33·05 | 12·50 | 9·10 | 2·50 | 0·50 | ... | ... | 76·65 |
| 1855 to 1867 | Not on record. | | | | | | | | | | | | |
| 1868 | ... | 0·72 | 0·76 | 8·41 | 9·67 | 20·91 | 19·22 | 16·92 | 14·34 | 1·05 | ... | ... | 87·00 |
| 1869 | 1·34 | 0·68 | 0·58 | 5·75 | 13·14 | 22·80 | 12·36 | 10·56 | 16·41 | 2·03 | ... | ... | 85·64 |
| 1870 | ... | 0·15 | ... | 3·81 | 12·29 | 48·91 | 27·40 | 11·81 | 13·15 | 8·81 | ... | ... | 128·33 |
| 1871 | ... | 0·42 | 3·61 | 8·30 | 20·72 | 17·38 | 14·26 | 12·07 | 10·43 | 1·17 | 0·60 | ... | 88·96 |
| 1872 | 0·83 | 0·07 | 0·76 | 3·20 | 12·12 | 35·15 | 13·21 | 11·40 | 23·79 | 4·61 | ... | ... | 105·14 |
| 1873 | ... | ... | 2·42 | 10·29 | 7·85 | 21·40 | 10·84 | 8·32 | 7·09 | ... | ... | 0·12 | 68·33 |

GOALPARA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1874 | 0·39 | 1·30 | 2·64 | 9·33 | 20·62 | 16·37 | 24·59 | 6·72 | 13·27 | 11·70 | ... | ... | 106·93 |
| 1875 | 0·83 | 0·28 | 1·58 | 11·16 | 11·24 | 34·96 | 13·37 | 17·85 | 5·38 | 0·63 | ... | 0·29 | 97·57 |
| 1876 | 0·02 | ... | 1·19 | 2·87 | 13·92 | 33·70 | 10·96 | 9·61 | 7·16 | 8·11 | 0·29 | 0·06 | 87·89 |
| 1877 | 0·88 | 0·69 | 2·78 | 8·47 | 15·25 | 6·41 | 16·68 | 9·73 | 17·58 | 1·32 | ... | 0·51 | 80·30 |
| 1878 | 0·23 | 0·78 | 1·11 | 7·50 | 12·00 | 33·59 | 25·69 | 31·76 | 28·42 | 1·43 | 0·31 | ... | 142·82 |
| 1879 | ... | 0·42 | 0·06 | 5·31 | 23·01 | 29·07 | 20·53 | 19·16 | 4·38 | 7·27 | ... | 0·42 | 109·63 |
| 1880 | 0·77 | 1·45 | 7·50 | 9·96 | 6·42 | 44·70 | 13·80 | 11·70 | 10·24 | 5·89 | 0·10 | 1·23 | 113·76 |
| 1881 | ... | 0·02 | 3·97 | 8·69 | 22·16 | 19·21 | 10·45 | 8·70 | 15·59 | 2·21 | 0·10 | ... | 91·10 |
| 1882 | 0·45 | 1·47 | 6·55 | 4·09 | 10·79 | 21·35 | 15·05 | 12·82 | 10·54 | 21·93 | 0·40 | ... | 105·44 |
| 1883 | 0·59 | 0·06 | 0·13 | 6·16 | 21·61 | 10·23 | 8·67 | 14·41 | 10·78 | 0·70 | ... | 0·10 | 73·44 |
| Mean | 0·38 | 0·58 | 2·12 | 6·32 | 13·26 | 24·72 | 17·08 | 12·78 | 11·95 | 4·87 | 0·23 | 0·26 | 94·55 |
| 1884 | 1·13 | 0·49 | 1·79 | 11·45 | 15·12 | 10·38 | 8·79 | 11·16 | 1·54 | 3·12 | ... | ... | 64·97 |
| 1885 | 0·50 | 0·18 | 7·30 | 6·50 | 13·50 | 21·13 | 18·95 | 7·55 | 10·44 | 0·90 | ... | 0·45 | 87·40 |
| 1886 | ... | ... | 0·45 | 4·83 | 16·43 | 14·47 | 22·60 | 12·38 | 19·38 | 0·52 | ... | 1·18 | 92·24 |
| Mean | 0·40 | 0·54 | 2·24 | 6·47 | 13·47 | 23·59 | 17·04 | 12·49 | 11·78 | 4·47 | 0·20 | 0·29 | 92·98 |

No. 218. DHUBRI.

Latitude N. 26° 7′. Longitude E. 89° 50′. Elevation 115 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ? | ? | ? | ? | ? | 39·80 | 24·13 | 10·94 | 14·98 | 9·30 | ... | ... | ? |
| 1871 | ? | ? | ? | 7·72 | 11·79 | 13·01 | 8·59 | 8·35 | 8·13 | 0·34 | ... | ... | ? |
| 1872 | 1·00 | ... | 1·55 | 3·20 | 23·35 | 31·14 | 17·95 | 7·55 | 16·40 | 6·30 | ... | ... | 108·44 |
| 1873 | ... | ... | 1·85 | 6·20 | 7·80 | 30·27 | 22·05 | 14·40 | 8·95 | 0·10 | ... | 0·65 | 92·27 |
| 1874 | ... | 0·63 | 0·10 | 11·15 | 32·30 | 22·10 | 19·20 | 4·75 | 14·39 | 8·50 | ... | ... | 113·12 |
| 1875 | 0·72 | 0·70 | 1·44 | 5·83 | 20·89 | 28·84 | 12·37 | 16·74 | 5·48 | 0·10 | ... | 0·10 | 93·21 |
| 1876 | ... | ... | 0·85 | 2·44 | 20·51 | 37·18 | 8·91 | 7·43 | 6·23 | 10·95 | ... | ... | 94·50 |
| 1877 | 1·30 | 1·08 | 1·27 | 5·52 | 17·18 | 7·28 | 13·24 | 3·32 | 15·95 | 2·65 | ... | 0·16 | 68·95 |
| 1878 | 0·20 | 0·30 | 1·44 | 4·41 | 12·04 | 47·09 | 36·21 | 24·80 | 29·16 | 0·51 | 0·10 | ... | 156·26 |
| 1879 | ... | 0·30 | ... | 2·94 | 18·57 | 28·17 | 24·48 | 14·52 | 5·27 | ? | ? | ? | ? |
| 1880 | 0·38 | 2·17 | 5·03 | 6·19 | 4·32 | 38·87 | 14·29 | 8·65 | 6·30 | 4·87 | ... | 1·53 | 92·60 |
| 1881 | ... | 0·28 | 2·59 | 3·36 | 15·68 | 13·48 | 9·05 | 6·58 | 17·40 | 0·53 | 0·06 | ... | 69·01 |
| 1882 | 0·06 | 1·85 | 1·22 | 2·50 | 13·38 | 29·28 | 6·74 | 18·98 | 18·14 | 15·53 | 0·25 | ... | 107·93 |
| 1883 | 0·32 | 0·03 | ... | 5·68 | 15·44 | 12·92 | 4·12 | 16·67 | 12·98 | 2·15 | ... | 0·06 | 70·37 |
| Mean | 0·33 | 0·61 | 1·44 | 5·16 | 16·40 | 27·10 | 15·81 | 11·69 | 12·84 | 4·76 | 0·03 | 0·19 | 96·36 |
| 1884 | 0·24 | 0·34 | 5·47 | 7·32 | 14·62 | 15·15 | 6·96 | 8·74 | 3·42 | 4·81 | ... | ... | 67·07 |
| 1885 | 0·32 | 0·03 | 4·41 | 4·46 | 12·23 | 32·06 | 20·18 | 6·53 | 10·79 | 0·88 | ... | 0·63 | 92·52 |
| 1886 | 0·01 | 0·32 | 2·05 | 2·51 | 9·06 | 22·62 | 12·71 | 15·56 | 16·54 | 0·83 | ... | 0·13 | 82·34 |
| Mean | 0·30 | 0·54 | 1·95 | 5·09 | 15·57 | 26·43 | 15·36 | 11·44 | 12·38 | 4·27 | 0·03 | 0·20 | 93·56 |

No. 219. TURA.

Latitude N. 25° 31′. Longitude E. 90° 17′. Elevation 3,943 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | P | P | P | P | P | P | 37·17 | 16·10 | 36·21 | 15·38 | 0·33 | ... | P |
| 1871 | ... | 2·06 | 1·68 | 7·13 | 13·58 | 25·92 | 17·67 | 18·43 | 15·83 | 5·82 | ... | ... | 108·12 |
| 1872 | ... | 0·23 | ... | 3·49 | 15·59 | 17·62 | 25·10 | 12·27 | 28·69 | 8·21 | 0·10 | ... | 111·30 |
| 1873 | 0·43 | 0·34 | 3·23 | 9·59 | 5·71 | 24·91 | 17·26 | 13·89 | 10·00 | 0·62 | ... | 0·45 | 86·43 |
| 1874 | 2·14 | 3·89 | 1·49 | 3·07 | 13·87 | 16·75 | 34·53 | 7·80 | 30·68 | 19·10 | ... | ... | 133·32 |
| 1875 | 1·70 | 0·55 | 1·38 | 5·76 | 21·99 | 27·08 | 22·89 | 28·14 | 9·33 | 0·73 | ... | 0·15 | 119·70 |
| 1876 | ... | ... | 0·77 | 2·71 | 19·93 | 27·76 | 10·58 | 11·84 | 13·65 | 8·40 | 2·69 | ... | 98·33 |
| 1877 | 1·34 | 0·17 | 2·34 | 6·57 | 21·65 | 8·33 | 31·70 | 10·11 | 25·34 | 6·45 | ... | 0·23 | 114·23 |
| 1878 | 0·30 | 1·10 | 1·09 | 9·42 | 11·28 | 34·97 | 36·94 | 38·83 | 39·86 | 2·15 | 1·31 | ... | 177·25 |
| 1879 | ... | 0·57 | ... | 3·70 | 19·85 | 23·51 | 37·45 | 25·22 | 22·89 | 9·94 | 0·55 | 0·05 | 143·73 |
| 1880 | 1·74 | 2·78 | 8·00 | 5·20 | 13·29 | 29·37 | 20·41 | 50·51 | 21·82 | 10·39 | 0·06 | 0·87 | 164·44 |
| 1881 | ... | 0·12 | 3·24 | 3·73 | 19·76 | 19·02 | 17·41 | 17·31 | 17·32 | 3·40 | 0·03 | ... | 101·34 |
| 1882 | ... | 1·52 | 0·83 | 3·48 | 9·44 | 25·62 | 13·77 | 26·94 | 20·05 | 31·30 | 0·43 | 0·03 | 133·41 |
| 1883 | 0·42 | 0·25 | 0·04 | 8·48 | 21·49 | 19·90 | 10·12 | 20·40 | 5·67 | 1·17 | ... | 0·27 | 88·21 |
| Mean | 0·62 | 1·04 | 1·85 | 5·56 | 15·96 | 23·14 | 23·79 | 21·27 | 21·24 | 8·79 | 0·39 | 0·15 | 123·80 |
| 1884 | 0·47 | 0·03 | 3·77 | 4·57 | 19·53 | 26·47 | 16·65 | 9·39 | 4·22 | 4·98 | 0·35 | ... | 90·43 |
| 1885 | 0·68 | 0·29 | 1·04 | 3·18 | 9·24 | 26·87 | 32·73 | 14·28 | 23·60 | 3·98 | 1·94 | 0·24 | 117·17 |
| 1886 | ... | 0·15 | 1·60 | 5·46 | 16·85 | 21·21 | 31·42 | 29·73 | 27·38 | 3·70 | ... | 0·15 | 137·65 |
| Mean | 0·58 | 0·88 | 1·91 | 5·35 | 15·82 | 23·46 | 24·34 | 20·66 | 20·74 | 7·98 | 0·41 | 0·14 | 122·27 |

No. 220. SHILLONG.

Latitude N. 25° 34′. Longitude E. 91° 56′. Elevation 4,792 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1866 | P | P | P | P | 4·40 | 18·50 | 11·00 | 10·90 | 10·70 | 6·40 | 0·90 | 0·50 | P |
| 1867 | 0·50 | 0·80 | 3·50 | 4·80 | 9·94 | 35·95 | 16·85 | 5·90 | 26·50 | 9·30 | 7·10 | 0·10 | 121·24 |
| 1868 | ... | 1·80 | 1·90 | 2·20 | 9·00 | 13·40 | 14·00 | 7·50 | 17·30 | 3·90 | 0·05 | 0·35 | 71·40 |
| 1869 | 0·20 | ... | 1·00 | 4·29 | 9·37 | 12·38 | 11·92 | 14·77 | 19·20 | 8·65 | 0·15 | ... | 81·93 |
| 1870 | ... | 0·30 | 1·16 | 3·18 | 6·53 | 11·75 | 14·00 | 10·14 | 21·28 | 2·90 | 1·25 | ... | 72·49 |
| 1871 | ... | 0·06 | 0·01 | 3·81 | 16·60 | 13·46 | 14·29 | 9·85 | 8·79 | 5·63 | 0·31 | ... | 72·81 |
| 1872 | 0·01 | 0·40 | 0·01 | 1·85 | 8·01 | 8·80 | 24·77 | 8·29 | 25·38 | 4·32 | ... | 0·02 | 81·86 |
| 1873 | ... | 0·52 | 2·43 | 5·30 | 5·84 | 13·44 | 6·19 | 13·15 | 5·74 | 0·76 | 0·20 | ... | 53·57 |
| 1874 | 1·30 | 2·51 | 1·16 | 3·64 | 6·57 | 15·09 | 29·63 | 10·22 | 14·85 | 10·66 | 1·80 | ... | 97·43 |
| 1875 | 0·85 | 0·40 | 4·83 | 2·40 | 8·88 | 21·70 | 14·72 | 24·79 | 11·30 | 5·07 | 0·70 | 0·57 | 100·21 |
| 1876 | ... | 0·60 | 1·01 | 0·77 | 13·65 | 19·22 | 13·97 | 25·83 | 7·88 | 8·14 | 2·97 | 1·21 | 95·25 |
| 1877 | 1·46 | 0·90 | 2·66 | 4·76 | 16·96 | 15·06 | 20·74 | 15·01 | 22·25 | 4·49 | 0·15 | 0·12 | 104·56 |
| 1878 | ... | 1·04 | 3·22 | 5·51 | 13·36 | 15·57 | 14·89 | 30·61 | 11·36 | 10·50 | 1·29 | 0·18 | 107·53 |
| 1879 | ... | 0·08 | 0·02 | 0·98 | 6·72 | 16·26 | 10·36 | 15·03 | 23·67 | 4·85 | ... | 1·50 | 79·47 |
| 1880 | 1·09 | 3·12 | 5·06 | 3·37 | 7·91 | 28·70 | 15·37 | 18·41 | 11·34 | 2·14 | 0·20 | 0·22 | 96·93 |

SHILLONG—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1881 | 0·20 | 0·54 | 4·38 | 4·75 | 18·02 | 13·53 | 7·25 | 18·21 | 19·39 | 5·19 | 0·69 | ... | 92·15 |
| 1882 | 0·14 | 2·21 | 1·12 | 5·77 | 9·64 | 14·35 | 4·28 | 15·18 | 10·42 | 20·29 | 1·20 | 0·02 | 84·62 |
| 1883 | 0·88 | 0·34 | 0·65 | 4·33 | 10·47 | 16·15 | 8·12 | 15·00 | 10·56 | 3·40 | 0·12 | 1·65 | 71·67 |
| Mean | 0·39 | 0·92 | 2·01 | 3·63 | 10·33 | 16·85 | 14·02 | 14·93 | 15·44 | 6·48 | 1·06 | 0·36 | 86·42 |
| 1884 | 0·37 | 0·76 | 0·96 | 7·22 | 8·34 | 16·27 | 11·21 | 8·91 | 5·60 | 6·52 | 0·66 | 0·01 | 66·83 |
| 1885 | 0·22 | 0·17 | 2·44 | 2·78 | 6·67 | 14·97 | 11·57 | 5·31 | 25·61 | 4·39 | 0·82 | 0·38 | 75·33 |
| 1886 | ... | ... | 1·51 | 2·45 | 9·06 | 23·04 | 19·43 | 18·84 | 14·68 | 3·14 | 0·20 | 0·60 | 92·95 |
| Mean | 0·36 | 0·83 | 1·95 | 3·71 | 10·00 | 17·03 | 14·03 | 14·37 | 15·42 | 6·22 | 0·99 | 0·35 | 85·26 |

No. 221. CHERRA POONJEE.

Latitude N. 25° 16′. Longitude E. 91° 47′. Elevation 4,455 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1832 | P | P | P | P | P | P | 73·72 | 52·38 | 55·30 | P | P | P | P |
| 1833 to 1850 | Not on record. | | | | | | | | | | | | |
| 1851 | 0·75 | 3·05 | 1·30 | 31·35 | 114·90 | 148·53 | 96·28 | 88·54 | 66·46 | 40·30 | P | P | P |
| 1852 | ... | 1·45 | 9·90 | 28·60 | 49·75 | 83·25 | 168·52 | 58·45 | 49·71 | 1·50 | 1·20 | ... | 452·33 |
| 1853 | 0·60 | ... | 3·45 | 26·50 | 44·20 | 130·85 | 66·80 | 108·45 | 135·15 | 5·25 | 3·25 | ... | 524·50 |
| 1854 | ... | 3·59 | 6·52 | 33·24 | 10·95 | 146·57 | 141·88 | 140·76 | 23·92 | 31·78 | 13·37 | ... | 552·58 |
| 1855 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | 1·80 | 1·60 | 48·12 | 70·80 | 113·37 | 161·91 | 149·27 | 94·91 | 58·15 | P | P | P |
| 1861 | 1·75 | ... | P | 93·26 | 141·81 | 136·49 | 366·14 | 65·92 | 80·41 | 7·54 | 11·80 | ... | P |
| 1862 | Not on record. | | | | | | | | | | | | |
| 1863 | P | ... | ... | 21·80 | 37·03 | 105·09 | 116·23 | 91·58 | 70·75 | 1·20 | ... | ... | 443·68 P |
| 1864 | 0·30 | 18·60 | 4·55 | 22·35 | 36·09 | 119·28 | 138·25 | 95·90 | 32·85 | 19·35 | 0·60 | ... | 488·12 |
| 1865 | ... | 1·37 | 2·40 | 11·53 | 59·00 | 139·00 | 208·40 | 58·80 | 20·50 | 3·10 | ... | ... | 504·10 |
| 1866 | 0·85 | 2·88 | 8·18 | P | 20·78 | 94·67 | 122·26 | 58·00 | 38·90 | 23·34 | P | P | P |
| 1867 | 0·60 | 1·50 | 7·50 | 14·60 | P | 102·46 | 130·76 | 56·92 | 25·85 | 10·41 | P | P | P |
| 1868 | P | P | P | P | P | 134·95 | 170·28 | 82·74 | 85·74 | 1·36 | P | P | P |
| 1869 | 0·52 | 3·64 | 3·89 | 36·71 | 76·73 | 118·90 | 157·35 | 80·05 | 60·47 | 17·66 | 3·10 | ... | 559·02 |
| 1870 | Not on record. | | | | | | | | | | | | |
| 1871 | P | 0·91 | 5·03 | 20·36 | 33·33 | 78·08 | 73·71 | 54·69 | 33·64 | 21·20 | 0·50 | ... | 321·45 P |

CHERRA POONJEE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | 0·51 | 0·35 | 11·59 | 28·95 | 34·61 | 103·65 | 129·05 | 53·54 | 101·49 | 13·72 | 0·37 | ... | 477·83 |
| 1873 | 0·21 | 4·14 | 11·45 | 17·94 | 13·36 | 88·82 | 71·04 | 52·71 | 21·73 | 0·97 | ... | 0·63 | 283·00 |
| 1874 | 1·07 | 4·66 | 10·97 | 28·33 | 96·43 | 64·27 | 115·10 | 45·36 | 47·96 | 8·03 | 0·37 | ... | 422·55 |
| 1875 | 2·77 | 0·79 | 6·94 | 54·35 | 22·78 | 134·16 | 88·09 | 83·80 | 14·40 | 0·50 | ... | ... | 408·58 |
| 1876 | ... | 1·63 | 17·57 | 31·91 | 53·86 | 184·80 | 79·37 | 65·02 | 19·43 | 15·76 | ... | ... | 469·35 |
| 1877 | 1·16 | 1·14 | 11·10 | 11·76 | 35·19 | 45·59 | 111·07 | 39·30 | 120·05 | 4·87 | 0·10 | 1·07 | 382·40 |
| 1878 | 2·05 | 3·78 | 10·07 | 20·24 | 19·03 | 136·01 | 151·77 | 118·61 | 76 68 | 8·33 | 5·37 | ... | 551·94 |
| 1879 | ... | 0·78 | 0·38 | 10·86 | 84·69 | 134·80 | 106·89 | 90·16 | 45·24 | 11·57 | ... | 1·75 | 487·12 |
| 1880 | 2·03 | 4·55 | 50·30 | 56·08 | 24·68 | 121·73 | 95·27 | 119·92 | 24·82 | 8·12 | 0·14 | 0·68 | 508·32 |
| 1881 | ... | 0·57 | 6·29 | 27·37 | 50·20 | 110·83 | 66·25 | 78·53 | 71·04 | 3·16 | 1·35 | 0·02 | 415·61 |
| 1882 | 0·01 | 4·63 | 15·59 | 22·00 | 37·51 | 104·49 | 34·49 | 92·42 | 44·91 | 33·87 | 0·68 | ... | 391·20 |
| 1883 | 1·28 | ... | 4·43 | 14·39 | 67·32 | 84·85 | 67·49 | 65·99 | 56·29 | 6·32 | ... | 3·24 | 371·60 |
| Mean | 0·72 | 2·63 | 8·79 | 29·72 | 51·46 | 114·06 | 122·53 | 79·55 | 56·24 | 13·74 | 2·01 | 0·35 | 481·80 |
| 1884 | 0·20 | 3·02 | 15·53 | 19·73 | 56·28 | 45·80 | 94·36 | 44·07 | 11·40 | 26·09 | 1·90 | ... | 318·38 |
| 1885 | 0·03 | 0·81 | 8·62 | 24·12 | 25·81 | 85·03 | 107·28 | 55·73 | 127·19 | 6·56 | 1·25 | 0·03 | 442·46 |
| 1886 | ... | 1·79 | 8·26 | 41·11 | 33·12 | 93·91 | 105·88 | 118·18 | 56·63 | 3·75 | ... | 0·05 | 462·68 |
| Mean | 0·64 | 2·55 | 9·01 | 29·56 | 50·01 | 110·01 | 120·53 | 78·86 | 57·13 | 13·58 | 1·81 | 0·31 | 474·00 |

No. 222. SAMAGOODTING.

Latitude N. 25° 47′. Longitude E. 93° 50′. Elevation 2,477 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ? | ? | ? | ? | ? | ? | 0·52 | 5·30 | ? | ? | ? | ? | ? |
| 1869 | 1·50 | 1·00 | 2·00 | 2·00 | 4·25 | 8·00 | 3·75 | 8·50 | 7·00 | 3·25 | ... | ... | 41·25 |
| 1870 | 0·25 | 0·70 | 2·75 | 3·75 | 4·75 | 7·75 | 11·00 | 16·50 | 10·00 | 1·50 | ... | ... | 58·95 |
| 1871 | ... | 1·00 | 0·50 | 3·87 | 7·48 | 9·45 | 7·32 | 13·13 | 7·01 | 6·26 | 0·46 | 0·27 | 56·75 |
| 1872 | 0·10 | 0·44 | 1·55 | 2·74 | 1·59 | 10·14 | 12·40 | 7·75 | 5·20 | 7·04 | 0·10 | ... | 49·05 |
| 1873 | 0·48 | 1·28 | 1·78 | 5·78 | 2·94 | 7·65 | 12·41 | 6·00 | 3·33 | 2·21 | ... | 0·33 | 44·19 |
| 1874 | 1·20 | 2·65 | 2·68 | 2·31 | 5·62 | 6·82 | 7·13 | ? | ? | ? | ? | ? | ? |
| 1875 | 1·84 | 0·72 | 2·31 | 4·17 | 5·13 | 15·26 | 6·59 | 12·47 | 7·12 | 3·46 | ... | .... | 59·07 |
| 1876 | 0·11 | 0·58 | 2·39 | 1·03 | 6·79 | 11·55 | 14·00 | 7·90 | 5·88 | 3·03 | 0·50 | 0·16 | 53·92 |
| 1877 | 1·55 | 0·98 | 3·26 | 4·99 | 7·51 | 14·84 | 12·00 | 20·37 | 5·96 | 2·41 | 0·09 | 0·31 | 74·27 |
| 1878 | 0·78 | 1·17 | 2·88 | 4·01 | 9·49 | 11·37 | 8·61 | 10·84 | 11·50 | 5·31 | 2·97 | 0·13 | 69·06 |
| Mean | 0·78 | 1·05 | 2·21 | 3·47 | 5·56 | 10·28 | 8·70 | 10·88 | 7·00 | 3·83 | 0·46 | 0·13 | 54·35 |

No. 223. KOHIMA.

Latitude N. 25° 42′. Longitude E. 94° 9′. Elevation 5,000 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1879 | 0·19 | 0·93 | 0·09 | 2·70 | 9·19 | 34·13 | 17·61 | 18·42 | 12·99 | 2·72 | ... | ... | 98·97 |
| 1880 | 1·99 | 2·23 | 7·35 | 2·46 | 7·13 | 13·60 | 19·52 | 12·13 | 5·67 | 4·14 | 0·49 | 0·50 | 77·41 |
| 1881 | ... | 0·32 | 4·76 | 4·37 | 9·94 | 10·82 | 19·46 | 19·02 | 13·78 | 3·06 | 2·03 | .... | 87·56 |
| 1882 | 0·05 | 2·74 | 1·75 | 2·39 | 7·54 | 11·30 | 15·91 | 10·91 | 7·44 | 4·16 | 1·20 | 0·17 | 65·56 |
| 1883 | 1·06 | 0·30 | 2·76 | 3·17 | 12·92 | 13·52 | 15·66 | 12·84 | 7·59 | 0·66 | 0·33 | 4·30 | 75·11 |
| Mean | **0·66** | **1·30** | **3·38** | **3·02** | **9·34** | **16·67** | **17·63** | **14·66** | **9·49.** | **2·95** | **0·81** | **0·99** | **80·90** |
| 1884 | 0·17 | 2·04 | 2·38 | 5·71 | 3·98 | 10·59 | 9·34 | 18·02 | 7·39 | 3·79 | 2·49 | 0·23 | 66·13 |
| 1885 | 0·22 | 1·08 | 1·75 | 3·27 | 4·65 | 9·19 | 18·68 | 14·22 | 16·81 | 2·29 | 4·09 | 0·17 | 76·42 |
| 1886 | 0·09 | 0·89 | 1·43 | 3·31 | 7·47 | 14·76 | 17·99 | 16·48 | 10·36 | 3·75 | ... | 0·19 | 76·72 |
| Mean | **0·47** | **1·32** | **2·81** | **3·42** | **7·85** | **14·74** | **16·77** | **15·26** | **10·25** | **3·07** | **1·33** | **0·70** | **77·99** |

No. 224. SILCHAR (CACHAR).

Latitude N. 24° 49′. Longitude E. 92° 59′. Elevation 87 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | P | P | P | P | P | P | P | P | P | P | 0·58 | 1·64 | P |
| 1849 | 1·18 | 7·42 | 7·78 | 26·35 | 22·68 | 18·98 | 20·71 | 14·64 | 28·77 | 11·83 | 1·55 | 0·10 | 161·99 |
| 1850 | ... | 2·15 | 7·22 | 8·65 | 21·63 | 15·36 | 21·65 | 14·38 | 9·45 | 10·46 | 2·07 | 1·05 | 114·07 |
| 1851 | 0·83 | 3·06 | 1·28 | 12·11 | 26·79 | 16·45 | 14·87 | 8·00 | 8·71 | 10·81 | ... | 0·13 | 103·04 |
| 1852 | 0·11 | 1·67 | 15·67 | 6·53 | 12·37 | 16·17 | 23·41 | 17·82 | 6·63 | 5·50 | 0·72 | 0·15 | 106·75 |
| 1853 | 0·32 | ... | 1·52 | 11·23 | 12·64 | 14·78 | 12·52 | 15·22 | 19·30 | 2·65 | 1·51 | ... | 91·69 |
| 1854 | ... | 2·14 | 0·87 | 19·69 | 3·95 | 11·80 | 11·14 | 18·42 | 9·25 | 6·75 | 2·50 | 0·05 | 86·56 |
| 1855 to 1862 | Not on record. | | | | | | | | | | | | |
| 1863 | ... | ... | ... | 4·15 | 4·05 | 14·55 | 19·10 | 12·00 | 4·90 | 6·50 | ... | ... | 65·25 |
| 1864 | P | ... | 8·70 | 13·20 | 9·20 | 7·00 | 25·10 | 17·20 | 9·70 | 4·60 | 3·10 | ... | 97·80 P |
| 1865 | ... | 0·40 | 0·60 | 7·40 | 20·95 | 35·26 | 52·17 | 20·77 | 5·50 | 7·78 | 3·00 | 5·00 | 158·83 |
| 1866 | 0·10 | 7·00 | 11·00 | 18·85 | 12·81 | 38·70 | 35·30 | 29·56 | 30·20 | 4·70 | ... | ... | 188·22 |
| 1867 | 2·20 | 3·50 | 9·95 | P | P | P | P | P | P | P | P | P | P |
| 1868 | ... | 9·60 | 2·00 | 17·25 | 6·85 | 18·80 | 16·70 | 15·30 | 16·05 | 9·45 | ... | ... | 112·00 |
| 1869 | 0·70 | 4·15 | 3·15 | 11·60 | 20·16 | 10·83 | 15·66 | 19·77 | 11·91 | 3·86 | ... | ... | 101·79 |
| 1870 | ... | 0·90 | 1·36 | 4·13 | 8·62 | 24·55 | 22·10 | 20·30 | 15·53 | 9·48 | 0·29 | ... | 107·26 |
| 1871 | ... | 1·67 | 5·33 | 14·10 | 11·47 | 8·64 | 17·50 | 12·83 | 13·70 | 7·24 | ... | ... | 92·48 |
| 1872 | 0·67 | 1·28 | 10·72 | 14·67 | 15·89 | 13·67 | 19·92 | 17·53 | 17·56 | 12·38 | 0·04 | 0·11 | 124·44 |
| 1873 | 1·04 | 2·50 | 7·48 | 5·57 | 6·80 | 22·42 | 23·81 | 13·63 | 10·72 | 8·13 | 0·87 | 0·39 | 103·36 |
| 1874 | 2·26 | 5·33 | 9·03 | 9·94 | 19·21 | 16·58 | 16·58 | 15·42 | 17·53 | 6·98 | 0·37 | ... | 119·25 |
| 1875 | 1·04 | 0·41 | 14·55 | 16·26 | 14·96 | 27·20 | 17·76 | 26·85 | 11·56 | 1·80 | ... | 0·14 | 132·53 |

SILCHAR (CACHAR)—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | 2·28 | 22·12 | 15·21 | 16·72 | 28·48 | 23·53 | 14·47 | 12·65 | 4·13 | 2·03 | ... | 141·62 |
| 1877 | 1·59 | 4·74 | 10·40 | 8·61 | 18·29 | 15·46 | 23·88 | 21·86 | 15·09 | 6·56 | 1·23 | 0·32 | 128·03 |
| 1878 | 1·30 | 2·28 | 6·19 | 13·96 | 16·13 | 14·10 | 21·18 | 14·74 | 24·58 | 6·33 | 4·54 | 0·52 | 125·85 |
| 1879 | ... | 0·51 | 5·48 | 4·73 | 16·26 | 32·49 | 17·75 | 22·82 | 10·22 | 2·83 | ... | 0·41 | 113·50 |
| 1880 | 0·93 | 2·52 | 16·85 | 14·77 | 14·45 | 18·17 | 16·01 | 13·55 | 7·31 | 4·38 | 0·62 | 1·90 | 111·46 |
| 1881 | 0·18 | 1·62 | 6·59 | 34·67 | 10·74 | 19·15 | 12·08 | 19·89 | 17·38 | 3·74 | 0·79 | 0·12 | 126·95 |
| 1882 | 0·29 | 3·78 | 14·05 | 6·97 | 18·93 | 24·68 | 9·28 | 17·79 | 7·22 | 5·62 | 0·75 | 0·04 | 109·40 |
| 1883 | 1·18 | 0·15 | 10·15 | 6·58 | 51·74 | 15·05 | 15·92 | 28·49 | 17·73 | 3·92 | 2·20 | 7·33 | 160·44 |
| Mean | 0·61 | 2·63 | 7·78 | 12·58 | 15·93 | 19·29 | 20·22 | 17·82 | 13·81 | 6·48 | 1·07 | 0·72 | 18·85 |
| 1884 | 0·54 | 3·21 | 9·13 | 14·87 | 21·55 | 10·25 | 17·05 | 29·46 | 9·34 | 7·79 | 1·57 | ... | 124·76 |
| 1885 | 0·16 | 0·58 | 4·53 | 21·82 | 9·44 | 22·80 | 21·64 | 14·32 | 18·07 | 7·27 | 0·69 | 0·05 | 121·37 |
| 1886 | 0·24 | 2·10 | 13·22 | 13·31 | 10·51 | 21·23 | 33·82 | 21·72 | 26·25 | 1·53 | 0·05 | 0·25 | 144·23 |
| Mean | 0·58 | 2·57 | 7·90 | 13·01 | 15·72 | 19·09 | 20·63 | 18·23 | 14·23 | 6·38 | 1·04 | 0·68 | 120·06 |

No. 225. SYLHET.

Latitude N. 24° 53′. Longitude E. 91° 55′. Elevation 140 feet.

Administration: ASSAM. Rainfall Province No. X.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1849 | 1·07 | 4·04 | 17·07 | 28·08 | 36·08 | 38·00 | 23·02 | ? | ? | ? | ? | ? | ? |
| 1850 | ... | ... | 1·94 | 2·06 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1851 | 0·30 | 4·50 | 2·15 | 19·35 | 43·35 | 39·70 | 33·50 | 28·30 | 17·85 | 26·40 | ... | 0·45 | 209·85 |
| 1852 | ... | 2·70 | 13·30 | 9·95 | 13·60 | 28·03 | 35·30 | 16·80 | 12·05 | 10·80 | 3·42 | ... | 145·95 |
| 1853 | ... | ... | 1·31 | 7·86 | 16·47 | 45·50 | 18·13 | 29·75 | 39·70 | 2·10 | 2·70 | ... | 163·52 |
| 1854 | ... | 3·02 | 0·98 | 14·82 | 6·65 | 36·30 | 20·54 | 24·00 | 6·67 | 14·65 | 5·40 | ... | 133·03 |
| 1855 | 0·02 | 3·65 | 3·45 | 19·52 | 38·05 | 29·45 | 12·90 | 40·07 | ? | ? | ? | ? | ? |
| 1856 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | 0·50 | 6·50 | 14·55 | 13·95 | 30·15 | 29·80 | 26·50 | 12·10 | 2·15 | ? | ? | ? |
| 1861 | 0·24 | 0·06 | ? | 19·20 | 41·61 | 31·11 | 31·00 | 24·25 | 9·70 | 6·15 | 0·45 | 0·15 | ? |
| 1862 | ... | 2·30 | 2·90 | ? | ? | ? | ? | 23·03 | ? | 18·40 | ... | ... | ? |
| 1863 | ... | ... | ... | 10·84 | 27·23 | 25·80 | 21·05 | 24·20 | 17·40 | 2·40 | 1·50 | ... | 130·42 |
| 1864 | ? | 1·30 | 4·80 | 12·50 | 10·20 | 34·80 | 30·80 | 26·70 | 5·90 | 8·00 | 1·10 | ... | 136·10 ? |
| 1865 | 0·10 | 0·25 | 0·70 | 17·80 | 20·95 | 38·20 | 24·50 | 28·80 | 10·50 | 4·80 | ... | 0·80 | 147·40 |
| 1866 | 0·15 | 1·60 | 0·90 | 9·90 | 14·40 | 31·40 | 8·95 | 10·40 | 7·50 | 9·55 | ... | ... | 94·75 |
| 1867 | 0·30 | 0·55 | 6·80 | 9·80 | 16·50 | 13·20 | 35·60 | 15·35 | 16·20 | 6·80 | 5·20 | 0·30 | 126·60 |
| 1868 | ... | 2·35 | 1·00 | 12·55 | 4·45 | 35·25 | 27·05 | 25·68 | 16·19 | 5·05 | ... | ... | 129·57 |
| 1869 | 0·90 | 2·10 | 5·70 | 20·70 | 45·90 | 23·00 | 20·10 | 26·50 | 21·55 | 12·10 | ... | ... | 178·55 |
| 1870 | ... | 0·83 | 0·86 | 4·54 | 12·16 | 39·70 | 22·47 | 37·15 | 29·43 | 14·09 | 0·15 | .... | 161·38 |
| 1871 | ... | 1·12 | 3·95 | 16·97 | 20·23 | 16·23 | 24·47 | 24·15 | 18·50 | 18·46 | ... | ... | 144·08 |
| 1872 | 0·16 | 0·41 | 6·09 | 21·12 | 22·15 | 48·54 | 37·13 | 17·22 | 37·56 | 7·25 | 0·07 | ... | 197·70 |

SYLHET—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1873 | 0·83 | 1·67 | 5·80 | 11·55 | 5·12 | 34·14 | 23·09 | 25·94 | 17·45 | 0·75 | 0·38 | 0·07 | 126·79 |
| 1874 | 1·81 | 4·60 | 8·51 | 20·70 | 19·23 | 22·35 | 16·79 | 12·19 | 28·90 | 8·86 | ... | ... | 143·94 |
| 1875 | 1·60 | 0·21 | 12·15 | 22·92 | 21·16 | 46·01 | 27·97 | 30.02 | 18·95 | 2·58 | .... | 0·22 | 183·79 |
| 1876 | ... | 0·77 | 7·18 | 5·62 | 25·60 | 28·59 | 29·35 | 31·99 | 13·06 | 8·02 | 1·84 | ... | 152·02 |
| 1877 | 2·85 | 1·92 | 2·99 | 2·89 | 19·18 | 28·98 | 29·98 | 17·94 | 47·26 | 2·53 | 1·19 | 0·67 | 158·38 |
| 1878 | 0·10 | 1·63 | 3·32 | 19·71 | 19·74 | 20·93 | 29·44 | 25·16 | 28·89 | 10·06 | 6·01 | 0·18 | 165·17 |
| 1879 | ... | 0·49 | 1·65 | 5·40 | 20·58 | 40·04 | 43·25 | 20·11 | 18·68 | 8·80 | ... | 1·22 | 160·22 |
| 1880 | 1·19 | 3·19 | 23·67 | 12·50 | 14·80 | 44·56 | 28·46 | 25·67 | 12·37 | 5 76 | ... | 1·60 | 173·77 |
| 1881 | ... | 0·39 | 7·29 | 13·89 | 18·46 | 26·73 | 22·44 | 32·49 | 37·20 | 4·96 | 2·48 | ... | 166·33 |
| 1882 | ... | 2·84 | 13·77 | 18·82 | 23·35 | 27·76 | 12·60 | 44·92 | 17·68 | 14·81 | 0·10 | ... | 176·65 |
| 1883 | 0·13 | 0·15 | 5·42 | 5·91 | 36·30 | 24·19 | 19·27 | 29·71 | 22·21 | 2·50 | ... | 2·57 | 148·36 |
| Mean | 0·39 | 1·59 | 5·74 | 13·73 | 21·64 | 32·02 | 25·48 | 25·69 | 20·05 | 8·31 | 1·18 | 0·30 | 156·12 |
| 1884 | 0·07 | 2·52 | 10·02 | 14·05 | 25·46 | 17·41 | 13·35 | 41·25 | 7·01 | 12·03 | 0·94 | ... | 144·11 |
| 1885 | ... | 0·59 | 7·33 | 16·93 | 10·61 | 31·62 | 38·00 | 14·01 | 49·20 | 4·43 | 0·77 | ... | 173·49 |
| 1886 | ... | 0·73 | 7·32 | 17·54 | 14·86 | 18·24 | 29·41 | 42·25 | 31·27 | 7·70 | ... | 0·28 | 169·60 |
| Mean | 0·36 | 1·56 | 5·36 | 13·96 | 21·20 | 31·12 | 25·62 | 26·33 | 20·96 | 8·29 | 1·12 | 0·28 | 156·16 |

No. 226. SAUGOR.

Latitude N. 23° 49′. Longitude E. 78° 48′. Elevation 1,769 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. V.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | P | P | P | P | P | 5·55 | 11·30 | 11·37 | 2·42 | ... | ... | 0·58 | P |
| 1845 | ... | 2·37 | 1·65 | ... | 0·60 | 10·88 | 23·16 | 9·65 | 1·11 | ... | ... | 1·45 | 50·87 |
| 1846 | ... | 0·15 | ... | ... | 1·96 | 7·51 | 13·52 | 7·95 | 6·98 | ... | ... | 0·45 | 38·52 |
| 1847 | 0·55 | 0·35 | ... | ... | 1·00 | 4·28 | 12·01 | 20·54 | 8·22 | 1·17 | 3·91 | 0·51 | 52·54 |
| 1848 | ... | 1·44 | ... | ... | ... | 2·57 | 10·93 | 3·62 | 2·45 | 0·79 | 0·25 | ... | 22·05 |
| 1849 | 3·10 | 1·10 | ... | 0·20 | 0·31 | 6·90 | 10·37 | 13·75 | 9·19 | 3·30 | 0·97 | 0·12 | 49·31 |
| 1850 | 1·17 | 3·20 | ... | 1·64 | P | P | P | P | P | P | P | P | P |
| 1851 | ... | 1·30 | ... | ... | 2·00 | 2·38 | 14·77 | 12·40 | 13·23 | 1·26 | ... | P | 47·34 P |
| 1852 | ... | ... | 1·02 | ... | P | P | P | P | P | P | P | P | P |
| 1853 to 1863 | Not on record. | | | | | | | | | | | | |
| 1864 | P | P | ... | ... | 0·15 | 0·22 | 10·05 | 1·99 | 6·27 | P | 0·70 | P | P |
| 1865 | 0·55 | 0·55 | 0·10 | ... | 0·70 | 0·50 | 22·30 | P | 5·80 | ... | ... | ... | P |
| 1866 | ... | 1·00 | ... | ... | ... | 18·19 | 29·38 | 14·58 | 4·38 | ... | ... | ... | 67·53 |
| 1867 | 0·90 | ... | ... | ... | 0·70 | 8·10 | 24·40 | 19·20 | 13·50 | 3·30 | ... | ... | 70·10 |
| 1868 | ... | ... | ... | 0·50 | ... | 3·00 | 10·40 | 1·90 | 15·20 | ... | ... | ... | 31·00 |
| 1869 | 0·40 | ... | ... | ... | ... | 3·40 | 16·30 | 8·37 | 16·80 | 4·30 | ... | 1·30 | 50·87 |
| 1870 | 1·60 | 0·10 | 0·65 | 0·20 | ... | 7·81 | 19·22 | 12·30 | 7·97 | 3·65 | ... | ... | 53·50 |
| 1871 | 1·02 | 0·35 | ... | 0·10 | 1·15 | 14·65 | 24·12 | 15·33 | 11·39 | ... | 0·30 | 0·50 | 68·91 |

SAUGOR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | 0·32 | 0·53 | 0·30 | 1·30 | ... | 3·55 | 20·63 | 12·67 | 7·16 | ... | ... | 0·20 | 46·66 |
| 1873 | 1·08 | ... | 0·18 | ... | 0·23 | 1·15 | 10·22 | 11·00 | 17·75 | ... | ... | ... | 41·61 |
| 1874 | 0·94 | ... | 0·01 | ... | 1·30 | 15·78 | 23·66 | 21·39 | 5·73 | ... | ... | ... | 68.81 |
| 1875 | ... | 0·51 | ... | ... | 0·31 | 5·19 | 28·60 | 19·26 | 5·70 | 1·18 | ... | ... | 60·75 |
| 1876 | ... | ... | ... | ... | ... | 2·89 | 29,82 | 11·38 | 8·85 | 0·26 | ... | ... | 53·20 |
| 1877 | 3·04 | 0·38 | ... | 1·09 | 0·31 | 5·78 | 7·21 | 4·19 | 0·87 | 2·73 | ... | 1·74 | 27·34 |
| 1878 | 0·14 | ... | 0·03 | 0·07 | 3·29 | 6·00 | 10·52 | 9·88 | 6·56 | 0·09 | ... | ... | 36·58 |
| 1879 | ... | 0·85 | ... | ... | 0·75 | 4·93 | 11·88 | 13·81 | 3·23 | 3·88 | ... | ... | 39·33 |
| 1880 | ... | ... | ... | ... | ... | 5·72 | 13·15 | 4·03 | 9·97 | 1·37 | 2·87 | ... | 37 11 |
| 1881 | ... | 0·25 | 1·27 | 0·10 | ... | 1·87 | 7·04 | 13·93 | 2·54 | 0·39 | ... | ... | 27·39 |
| 1882 | ... | ... | ... | 0·04 | 0·30 | 7·90 | 28·13 | 6·97 | 5·17 | ... | 1·40 | 0·06 | 49·97 |
| 1883 | 0·70 | ... | ... | ... | 1·44 | 5·92 | 8·64 | 5·35 | 7·72 | 0·39 | ... | ... | 30·16 |
| Mean | 0·57 | 0·53 | 0·19 | 0·19 | 0·63 | 6·02 | 16·73 | 11·03 | 7·64 | 1·08 | 0·39 | 0·28 | 45·28 |
| 1884 | 0·80 | ... | 0·03 | ... | 0·05 | 4·40 | 15·12 | 17·66 | 10·23 | 0·76 | ... | 0·54 | 49·59 |
| 1885 | 1·52 | ... | ... | 0·17 | 0·85 | 13·33 | 17·31 | 10·06 | 0·99 | 3·19 | ... | 8·11 | 55·53 |
| 1886 | 0·07 | 0·76 | 0·31 | ... | 0·52 | 7·83 | 20·58 | 9·25 | 2·41 | 4·77 | ... | 2·98 | 49·48 |
| Mean | 0·60 | 0·51 | 0·18 | 0·17 | 0·62 | 6·27 | 16·82 | 11·16 | 7·33 | 1·27 | 0·35 | 0·66 | 45·94 |

No. 227. DAMOH.

Latitude N. 23° 50′. Longitude E. 79° 29′. Elevation 1,385 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. V.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | ? | 1·86 | 11·64 | 11·04 | 5·46 | ... | ... | 0·37 | ? |
| 1845 | 0·59 | 2·62 | 1·49 | ... | 0·33 | 4·76 | 21·22 | 11·88 | 0·34 | ... | ... | 0·62 | 43·85 |
| 1846 | ... | 0·68 | ... | ... | ... | 14·22 | 16·72 | 8·65 | 8·88 | ... | ... | ... | 49·15 |
| 1847 | 0·35 | 0·40 | 0·23 | ... | ... | 2·50 | 8·44 | 22·37 | 6·65 | 1·78 | 3·14 | 0·34 | 46·20 |
| 1848 | ... | 0·58 | ... | ... | ... | 2·76 | 6·58 | 3·66 | 3·66 | 0·25 | ... | ... | 17·49 |
| 1849 | 3·95 | 1·33 | ... | 0·10 | 0·42 | 4·44 | 10·89 | 22·21 | 7·26 | 2·23 | 2·81 | 0·13 | 55·77 |
| 1850 | 1·35 | 1·98 | ... | 1·88 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1851 to 1862 | Not on record. | | | | | | | | | | | | |
| 1863 | ... | ... | 0·10 | ... | ... | 9·40 | ? | ? | 4·30 | 1·10 | ... | ? | ? |
| 1864 | ? | ? | ... | ... | 2·30 | 1·10 | 15·00 | 15·00 | 4·10 | ? | 0·04 | ? | ? |
| 1865 | 2·20 | 0·50 | 0·10 | ... | 0·20 | 3·40 | 19·80 | 19·20 | 6·70 | 0·50 | ... | 0·10 | 52·70 |
| 1866 | 0·01 | ... | ... | 0·40 | ... | ? | 13·00 | 6·70 | 3·70 | ... | ... | ... | ? |
| 1867 | 0·70 | 0·20 | ... | ... | ... | 10·70 | 25·00 | 23·30 | 12·00 | 4·60 | ... | 0·20 | 76·70 |
| 1868 | 0·70 | ... | 0·30 | ... | ... | 3·00 | 13·30 | 0·60 | 5·10 | ... | ... | 0·20 | 23·20 |
| 1869 | 0·40 | ... | ... | 0·40 | ... | 3·40 | 16·40 | 9·80 | 13·50 | 6·90 | ... | 1·00 | 51·80 |
| 1870 | 0·80 | ... | 0·80 | 0·40 | ... | 6·00 | 10·50 | 10·20 | 12·70 | 6·80 | 0·10 | ... | 48·30 |
| 1871 | 0·60 | 0·10 | ... | ... | 1·10 | 11·90 | 13·95 | 13·60 | 14·80 | ... | ... | ... | 56·05 |

DAMOH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | ... | ... | 0·80 | 1·50 | 0·30 | 2·60 | 13·50 | 26·10 | 4·60 | 0·20 | ... | 1·60 | 51·20 |
| 1873 | 0·80 | ... | ... | ... | 0·40 | 0·90 | 18·66 | 18·45 | 20·15 | ... | ... | 0·05 | 59·41 |
| 1874 | 1·25 | ... | 0·20 | ... | 0·20 | 16·40 | 26·40 | 21·95 | 6·20 | ... | ... | ... | 72·60 |
| 1875 | ... | 0·70 | ... | ... | ... | 3·60 | 26·70 | 10·70 | 11·60 | 0·05 | ... | 0·20 | 53·55 |
| 1876 | ... | ... | ... | ... | ... | 0·85 | 41·54 | 12·25 | 7·70 | ... | ... | ... | 62·34 |
| 1877 | 0·40 | 0·40 | ... | 0·15 | 0·95 | 10·15 | 6·07 | 5·89 | 4·23 | 2·50 | ... | 0·87 | 31·61 |
| 1878 | ... | .... | 0·09 | 0·49 | 1·25 | 4·11 | 10·90 | 8·61 | 5·02 | 0·12 | 0·48 | ... | 31·07 |
| 1879 | ... | 0·80 | ... | ... | 0·38 | 7·17 | 12·99 | 13·88 | 5·74 | 3·52 | ... | ... | 44·48 |
| 1880 | ... | ... | ... | ... | 0·30 | 1·73 | 15·92 | 3·55 | 4·70 | 2·10 | 1·41 | ... | 29·71 |
| 1881 | ... | 0·39 | 1·71 | ... | ... | 7·13 | 6·30 | 22·24 | 3·52 | 0·73 | ... | ... | 42·02 |
| 1882 | ... | 0·03 | ... | 0·15 | 0·20 | 14·93 | 32·20 | 5·36 | 3·85 | 0·30 | 1·30 | ... | 58·32 |
| 1883 | 1·45 | ... | ... | ... | 0·96 | 8·85 | 12·71 | 3·31 | 11·03 | 1·45 | ... | ... | 39·76 |
| Mean | 0·60 | 0·41 | 0·22 | 0·20 | 0·36 | 6·07 | 16·40 | 12·71 | 7·31 | 1·35 | 0·34 | 0·23 | 46·20 |
| 1884 | 0·26 | ... | 0·09 | ... | 0·29 | 10·97 | 18·05 | 25·67 | 18·26 | 0·91 | ... | 1·50 | 76·00 |
| 1885 | 0·83 | ... | ... | 1·70 | 1·52 | 6·80 | 20·01 | 12·16 | 2·23 | 0·77 | 0·11 | 6·79 | 52·92 |
| 1886 | ... | 0·26 | 0·02 | ... | 0·67 | 7·02 | 22·97 | 9·53 | 0·74 | 10·28 | ... | 1·51 | 53·00 |
| Mean | 0·57 | 0·38 | 0·20 | 0·24 | 0·41 | 6·30 | 16·81 | 13·03 | 7·29 | 1·62 | 0·31 | 0·55 | 47·71 |

No. 228. JUBBULPORE.

Latitude N. 23° 9′. Longitude E. 79° 59′. Elevation 1,351 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. V.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | ? | 2·04 | 12·55 | 12·26 | 1·61 | ... | ... | ... | ? |
| 1845 | 0·50 | 0·50 | 0·80 | ... | ... | 3·95 | 19·28 | 16·51 | 1·70 | ... | ... | 1·68 | 44·92 |
| 1846 | ... | 0·75 | 0·02 | ... | ... | 14·11 | 23·57 | 9·66 | 9·34 | 1·10 | ... | ... | 58·55 |
| 1847 | 0·20 | ... | ... | ... | ... | 9·74 | 11·31 | 18·60 | 2·57 | 2·13 | 0·41 | ... | 44·96 |
| 1848 | ... | 0·15 | ... | ... | 0·27 | 6·04 | 13·86 | 10·87 | 3·47 | 0·46 | ... | ... | 35·12 |
| 1849 | 1·80 | 0·86 | 0·17 | 0·21 | 2·40 | 3·66 | 10·13 | 16·63 | 7·72 | 3·09 | 0·10 | 0·15 | 46·92 |
| 1850 | ... | 0·90 | ... | 0·45 | ... | 9·89 | 13·86 | 10·08 | 6·33 | 3·03 | ... | 0·05 | 44·59 |
| 1851 | 0·50 | 0·90 | 0·02 | ... | 0·47 | 5·97 | 17·19 | 3·93 | 8·22 | 1·34 | ... | ... | 38·54 |
| 1852 | 0·58 | .... | 2·89 | ... | 1·12 | 7·56 | 12·40 | 26·40 | 23·00 | 1·70 | ... | 0·40 | 76·05 |
| 1853 | 1·50 | ... | ... | ... | ... | 24·40 | 20·50 | 13·40 | ? | ? | ? | ? | ? |
| 1854 | ? | ? | ? | ? | ? | 6·97 | 6·72 | 13·90 | 12·75 | 5·84 | 5·71 | 0·90 | ? |
| 1855 | 1·66 | 2·94 | 1·88 | 0·28 | ... | 7·17 | 30·07 | 0·41 | 9·71 | 3·85 | ... | ... | 57·97 |
| 1856 | 0·03 | 1·71 | 0·02 | 0·11 | 0·04 | 4·81 | 19·22 | 10·58 | 5·21 | 0·61 | 1·62 | ... | 43·96 |
| 1857 | ... | 0·48 | ... | ... | 0·10 | 2·50 | 11·10 | 26·50 | 10·40 | ... | ... | ... | 51·08 |
| 1858 | 0·12 | ... | ... | ... | ... | 0·70 | 20·00 | 12·60 | 5·60 | ... | ... | ... | 39·02 |
| 1859 | 0·01 | 0·30 | ... | 1·00 | ... | 5·40 | 15·90 | 14·90 | 10·10 | 0·60 | ... | 0·80 | 49·01 |
| 1860 | ... | ... | ... | ... | ... | 2·48 | 17·53 | 14·84 | 13·50 | ... | ... | ... | 48·35 |
| 1861 | 2·12 | ... | 0·78 | ... | 0·36 | 8·56 | 17·59 | 10·65 | 4·97 | ... | ... | ... | 45·03 |
| 1862 | 1·18 | ... | 0·68 | 0·09 | ... | 5·02 | 8·84 | 16·68 | 5·66 | 0·95 | ... | ... | 39·10 |
| 1863 | 0·35 | 0·06 | 0·59 | ... | .... | 17·73 | 17·21 | 10·78 | 7·98 | 4·75 | ... | ... | 59·45 |

JUBBULPORE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1864 | 1·21 | 0·38 | ... | 0·35 | 2·51 | 1·33 | 14·59 | 14·05 | 9·46 | ... | 1·55 | ... | 45·43 |
| 1865 | 2·20 | 1·99 | 1·34 | ... | ... | 5·56 | 27·21 | 14·89 | 5·80 | 1·28 | 0·15 | ... | 60·42 |
| 1866 | 0·03 | 0·20 | 0·03 | 0·59 | ... | 13·15 | 23·76 | 10·96 | 4·39 | ... | ... | ... | 53 11 |
| 1867 | 0·42 | 0·07 | 0·45 | 0·28 | 0·04 | 11·15 | 20·45 | 20·70 | 17·36 | 1·73 | ... | 0·45 | 73·10 |
| 1868 | 2·81 | 1·11 | 1·15 | 0·04 | 0·32 | 9·34 | 5·81 | 4·25 | 3·81 | ... | ... | 0·16 | 28·80 |
| 1869 | 0·08 | ... | ... | ... | ... | 3·37 | 28·25 | 8·90 | 16·97 | 5·06 | ... | 0·14 | 62·77 |
| 1870 | 0·67 | 0·22 | 1·51 | 0·10 | ... | 12·84 | 27·39 | 18·39 | 12·63 | 3·82 | 0·21 | ... | 77·78 |
| 1871 | 0·37 | 0·61 | ... | 0·02 | 0·71 | 12·41 | 19·71 | 11·20 | 13·19 | ... | ... | 1·00 | 59·22 |
| 1872 | 0·27 | 0·14 | 2·04 | 0·65 | ... | 5·45 | 28·67 | 21·95 | 6·14 | 1·48 | ... | 0·40 | 67·19 |
| 1873 | ... | 0·49 | 0·24 | ... | 0·76 | 0·33 | 16·89 | 12·98 | 14·21 | ... | ... | 0·21 | 46·11 |
| 1874 | 0·36 | 0·13 | ... | ... | 0·97 | 19·58 | 25·12 | 36·14 | 4·38 | 0·20 | .... | 0·05 | 86·93 |
| 1875 | 0·20 | 0·08 | ... | 0·10 | ... | 7·49 | 22·60 | 8·80 | 11·54 | 0·82 | ... | ... | 51·63 |
| 1876 | .. | ... | ... | ... | 1·02 | 2·19 | 28·33 | 12·72 | 12·37 | ... | ... | ... | 56·63 |
| 1877 | 2·33 | 1·09 | 1·98 | 3·52 | 2·62 | 17·26 | 7·05 | 9·82 | 1·63 | 1·07 | ... | ... | 48·37 |
| 1878 | 0·12 | 0·47 | ... | 0·12 | 0·32 | 1·85 | 11·71 | 12·41 | 7·20 | 0·17 | 0·11 | ... | 34·48 |
| 1879 | ... | 0·73 | ... | ... | 0·06 | 8·60 | 10·84 | 17·45 | 8·67 | 3·92 | ... | ... | 50·27 |
| 1880 | ... | ... | ... | ... | ... | 6·30 | 19·11 | 7·13 | 10·89 | 4·73 | 2·06 | 0·03 | 50·25 |
| 1881 | 0·01 | 0·24 | 2·10 | 0·05 | 0·27 | 6·81 | 21·45 | 17·10 | 1·75 | 0·11 | 0·16 | ... | 50·05 |
| 1882 | ... | 0·02 | ... | 0·98 | 0·14 | 23·93 | 30·26 | 11·08 | 2·21 | 0·07 | 1·14 | ... | 69·75 |
| 1883 | 0·57 | ... | 0·21 | ... | 0·24 | 9·25 | 18·10 | 5·98 | 12·50 | 1·43 | ... | ... | 48·28 |
| Mean | 0·58 | 0·46 | 0·50 | 0·24 | 0·39 | 8·17 | 18·15 | 13·67 | 8·38 | 1·42 | 0·34 | 0·16 | 52·46 |
| 1884 | 0·76 | 1·50 | 0·35 | 0·01 | 0·39 | 13·06 | 36·55 | 25·32 | 14·04 | 2·33 | ... | 0·46 | 94·77 |
| 1885 | 1·37 | 0·27 | 0·12 | 0·08 | 4·41 | 13·71 | 20·27 | 12·51 | 0·76 | 0·14 | 1·45 | 4·92 | 60·01 |
| 1886 | ... | 0·10 | 0·94 | ... | 1 34 | 11·48 | 18·34 | 7·25 | 2·98 | 6·26 | ... | 0·42 | 49·11 |
| Mean | 0·59 | 0·47 | 0·50 | 0·22 | 0·51 | 8·49 | 18·63 | 13·77 | 8·21 | 1·53 | 0·35 | 0·29 | 53·56 |

No. 229. NARSINGHPUR.

Latitude N. 22° 57′. Longitude E. 79° 15′. Elevation 1,000 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. V.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | ? | 2·60 | 7·40 | 11·05 | 4·30 | ... | ... | ... | ? |
| 1845 | ... | ... | 0·55 | ... | 0·30 | 8·15 | 17·50 | 9·52 | 1·36 | ... | ... | 1·10 | 38·48 |
| 1846 | ... | 0·02 | 0·10 | ... | 1·30 | 6·00 | 18·29 | 10·01 | 7·69 | 0·47 | ... | ... | 43·88 |
| 1847 | ... | 0·40 | ... | ... | 0·55 | 4·82 | 4·49 | 13·68 | 4·26 | 1·27 | 2·13 | ... | 31·60 |
| 1848 | ... | 0·27 | ... | 0·31 | ... | 4·80 | 4·77 | 8·22 | 4·34 | 1·63 | ... | ... | 24·34 |
| 1849 | 3·33 | 0·47 | ... | 0·60 | 0·82 | 4·05 | 6·33 | 12·17 | 5·71 | 6·30 | ... | ... | 39·78 |
| 1850 | 1·68 | 0·32 | ... | 0·20 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1851 | ... | ... | ... | ... | 0·31 | 1·30 | 17·67 | 7·38 | 10·96 | 0·41 | 0·59 | ? | 38·62? |
| 1852 | 0·37 | ... | 1·34 | ... | 0·68 | 7·12 | 6·79 | 9·40 | 12·21 | 0·43 | ... | ... | 38·34 |
| 1853 to 1862 | Not on record. | | | | | | | | | | | | |

NARSINGHPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | 0·10 | ... | 0·50 | ... | ... | 13·00 | P | P | 6·74 | 4·28 | ... | P | P |
| 1864 | P | P | ... | 0·50 | 1·38 | 2·19 | 15·74 | 15·52 | 10·09 | P | 0·10 | P | P |
| 1865 | 0·11 | 0·90 | 0·10 | ... | 0·10 | 2·50 | 18·90 | 10·60 | 6·30 | 1·00 | ... | ... | 40·51 |
| 1866 | ... | ... | ... | 0·16 | 0·23 | 21·26 | 14·74 | 11·98 | 4·33 | ... | ... | ... | 52·70 |
| 1867 | ... | ... | ... | 0·54 | 0·72 | 19·43 | 24·38 | 25·82 | 12·62 | 0·97 | ... | ... | 84·48 |
| 1868 | ... | ... | ... | ... | 0·30 | 2·01 | 6·87 | 2·05 | 6·00 | ... | ... | 0·40 | 17·63 |
| 1869 | ... | ... | 0·30 | ... | ... | 3·30 | 16·51 | 7·70 | 13·90 | 5·70 | ... | 0·90 | 48·31 |
| 1870 | 0·30 | 0·10 | 0·83 | 0·30 | ... | 9·00 | 12·80 | 10·30 | 10·50 | 2·80 | ... | ... | 46·93 |
| 1871 | 1·00 | 2·40 | ... | ... | 1·90 | 21·20 | 20·70 | 9·80 | 13·20 | ... | ... | ... | 70·20 |
| 1872 | ... | ... | 1·30 | 2·00 | ... | 8·50 | 13·90 | 23·50 | 5·00 | 4·10 | ... | 0·30 | 58·60 |
| 1873 | 0·40 | 0·50 | 0·20 | ... | 0·10 | 1·60 | 15·20 | 11·90 | 17·20 | 0·46 | ... | ... | 47·56 |
| 1874 | ... | ... | ... | ... | 0·80 | 15·60 | 19·30 | 14·90 | 2·70 | ... | ... | ... | 53·30 |
| 1875 | ... | ... | ... | 0·40 | 0·20 | 21·50 | 28·60 | 14·00 | 8·80 | 1·40 | ... | ... | 74·90 |
| 1876 | ... | ... | ... | ... | ... | 1·10 | 17·04 | 13·55 | 9·70 | ... | ... | ... | 41·39 |
| 1877 | 1·90 | 2·22 | 0·88 | 0·46 | 1·07 | 4·30 | 24·53 | 7·19 | 6·88 | 2·75 | ... | 2·85 | 55·03 |
| 1878 | ... | 0·56 | ... | 1·70 | 1·29 | 3·49 | 19·72 | 19·78 | 6·78 | 0·50 | 0·02 | ... | 53·84 |
| 1879 | ... | 0·19 | ... | ... | 0·98 | 9·20 | 11·81 | 17·19 | 6·47 | 4·53 | ... | ... | 50·37 |
| 1880 | ... | ... | ... | ... | 0·09 | 4·76 | 11·75 | 8·05 | 13·68 | 0·76 | 2·46 | ... | 41·55 |
| 1881 | ... | 0·33 | 1·28 | ... | 3·44 | 9·15 | 15·79 | 13·48 | 3·11 | ... | 0·35 | ... | 43·93 |
| 1882 | ... | 0·23 | ... | 0·60 | 0·52 | 11·81 | 23·97 | 8·07 | 6·04 | ... | 1·32 | ... | 52·56 |
| 1883 | 0·31 | ... | ... | ... | 0·53 | 9·77 | 13·44 | 6·19 | 26·65 | 1·38 | ... | ... | 58·27 |
| Mean | **0·34** | **0·32** | **0·25** | **0·27** | **0·52** | **8·05** | **15·32** | **11·89** | **8·54** | **1·47** | **0·24** | **0·21** | **47·42** |
| 1884 | 1·18 | 0·60 | 0·28 | ... | 0·42 | 9·06 | 16·85 | 16·49 | 15·16 | 0·13 | ... | 0·78 | 60·95 |
| 1885 | 1·56 | 0·36 | ... | 0·28 | 0·58 | 12·98 | 14·27 | 9·29 | 1·08 | 0·86 | 0·02 | 4·87 | 46·15 |
| 1886 | 0·04 | 0·12 | 0·10 | ... | 0·08 | 6·86 | 15·90 | 6·81 | 2·40 | 7·54 | ... | 0·95 | 40·86 |
| Mean | **0·40** | **0·32** | **0·24** | **0·25** | **0·51** | **8·20** | **15·35** | **11·79** | **8·32** | **1·60** | **0·22** | **0·42** | **47·62** |

No. 230. HOSHANGABAD.

Latitude N. 22° 45′. Longitude E. 77° 46′. Elevation 1,020 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. V.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | P | P | P | P | P | P | 12·62 | 12·14 | 5·19 | ... | ... | ... | P |
| 1845 | ... | 1·11 | 1·66 | 0·25 | 0·41 | 4·65 | 19·20 | 22·12 | 2·46 | ... | ... | 0·82 | 52·68 |
| 1846 | ... | ... | ... | ... | 1·60 | 4·99 | 26·87 | 5·38 | 15·97 | ... | ... | ... | 54·81 |
| 1847 | 0·22 | 0·35 | ... | ... | 0·56 | 4·15 | 13·55 | 13·11 | 11·62 | 0·53 | 6·32 | 0·12 | 50·60 |
| 1848 | ... | 0·09 | ... | ... | 0·57 | 6·54 | 6·05 | 11·44 | 5·72 | 0·05 | 0·36 | ... | 30·82 |
| 1849 | 1·59 | ... | ... | 0·06 | 0·72 | 9·00 | 9·92 | 9·62 | 11·46 | 2·77 | 0·23 | 0·20 | 45·57 |
| 1850 | 1·09 | 0·88 | 0·14 | 0·31 | P | P | P | P | P | P | P | P | P |
| 1851 | ... | ... | ... | ... | ... | 2·00 | 14·00 | 9·50 | 17·90 | 1·25 | 0·50 | P | 45·15 P |
| 1852 | Not on record. | | | | | | | | | | | | |
| 1853 | | | | | | | | | | | | | |
| 1854 | P | ... | ... | P | ... | 2·70 | 14·30 | 3·00 | 5·80 | P | P | P | P |

HOSHANGABAD—*continued*.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1855 to 1862 | Not on record. | | | | | | | | | | | | |
| 1863 | ... | ... | 3·00 | ... | 3·50 | 10·02 | P | P | 4·55 | ... | ... | P | P |
| 1864 | P | P | ... | 0·20 | ... | 2·40 | 2·09 | 13·00 | 4·90 | P | 0·09 | P | P |
| 1865 | 0·30 | ... | 0·20 | 0·02 | 0·09 | 1·60 | 19·30 | P | 8·60 | 0·20 | 0·05 | ... | P |
| 1866 | ... | ... | 0·27 | ... | 0·90 | 2·40 | 14·50 | 12·98 | 4·90 | 0·01 | ... | ... | 35·96 |
| 1867 | 0·02 | ... | ... | ... | ... | 9·30 | 19·00 | 31·02 | 13·30 | 3·30 | ... | ... | 75·94 |
| 1868 | 2·55 | ... | ... | ... | 0·40 | 3·15 | 11·10 | 6·80 | 5·60 | ... | ... | ... | 29·60 |
| 1869 | ... | ... | ... | ... | 0·20 | 3·60 | 11·60 | 13·60 | 11·20 | 2·10 | ... | 1·80 | 44·10 |
| 1870 | 0·50 | 0·10 | 0·03 | ... | ... | 7·10 | 10·20 | 9·40 | 5·10 | 0·29 | 0·10 | ... | 32·82 |
| 1871 | 0·15 | ... | ... | ... | 0·90 | 14·30 | 15·40 | 12·80 | 22·40 | ... | 0·20 | 0·05 | 66·20 |
| 1872 | ... | ... | 0·02 | 0·07 | 0·01 | 0·09 | 12·60 | 14·00 | 7·70 | 1·50 | ... | 0·20 | 36·19 |
| 1873 | 0·60 | ... | ... | ... | 0·10 | 1·00 | 10·40 | 10·40 | 19·60 | ... | ... | ... | 42·10 |
| 1874 | ... | ... | ... | ... | 0·15 | 11·35 | 15·30 | 12·80 | 5·10 | ... | ... | ... | 44·70 |
| 1875 | ... | ... | ... | ... | ... | 9·02 | 23·79 | 11·31 | 18·72 | 0·39 | ... | ... | 63·23 |
| 1876 | ... | ... | 0·02 | ... | 0·66 | 3·72 | 17·15 | 17·17 | 11·73 | ... | ... | ... | 50·45 |
| 1877 | 1·43 | 0·47 | 0·18 | 0·10 | 0·38 | 4·28 | 15·51 | 7·78 | 1·40 | 2·68 | ... | 3·26 | 37·47 |
| 1878 | 0·12 | 0·98 | ... | 0·04 | 2·59 | 1·15 | 18·11 | 12·97 | 13·99 | 0·32 | ... | ... | 50·27 |
| 1879 | ... | 0·15 | ... | ... | 0·39 | 4·41 | 9·07 | 20·23 | 14·86 | 2·60 | ... | ... | 51·71 |
| 1880 | ... | ... | ... | ... | 0·09 | 10·73 | 13·65 | 20·30 | 10·25 | 0·96 | 2·16 | ... | 58·14 |
| 1881 | ... | ... | 1·68 | ... | 0·20 | 18·87 | 24·06 | 12·30 | 6·44 | 4·33 | 0·23 | 0·03 | 68·14 |
| 1882 | ... | ... | 0·01 | 0·02 | 0·21 | 8·63 | 31·61 | 6·56 | 10·45 | ... | 0·68 | ... | 58·17 |
| 1883 | 0·18 | ... | 0·07 | ... | 0·60 | 10·42 | 12·12 | 15·43 | 23·73 | 3·33 | ... | ... | 65·88 |
| Mean | 0·32 | 0·15 | 0·25 | 0·04 | 0·54 | 6·13 | 15·09 | 12·86 | 10·37 | 0·99 | 0·39 | 0·26 | 47·39 |
| 1884 | 1·07 | 0·11 | 0·01 | ... | 0·10 | 6·95 | 18·29 | 22·52 | 29·86 | 0·59 | ... | 1·13 | 80·54 |
| 1885 | 0·54 | ... | ... | 0·06 | 0·53 | 16·49 | 18·33 | 10·50 | 1·44 | 1·55 | 0·04 | 7·03 | 56·51 |
| 1886 | 0·12 | ... | ... | ... | 0·07 | 5·71 | 21·12 | 6·31 | 1·02 | 7·94 | ... | 1·39 | 43·68 |
| Mean | 0·35 | 0·14 | 0·23 | 0·04 | 0·51 | 6·47 | 15·49 | 12·88 | 10·41 | 1·22 | 0·35 | 0·57 | 48·66 |

No. 231. KHANDWA.

Latitude N. 21° 49′. Longitude E. 76° 23′. Elevation 1,024 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. V.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1864 | P | P | P | P | P | P | P | 6·60 | 0·90 | P | P | P | P |
| 1865 | ... | P | 0·10 | ... | ... | 5·70 | 4·90 | P | ... | 1·10 | 0·09 | ... | P |
| 1866 | ... | ... | ... | ... | ... | P | 16·30 | 13·00 | ... | ... | ... | ... | P |
| 1867 | ... | ... | 0·10 | 0·20 | 0·40 | 13·50 | 20·00 | 11·90 | 7·70 | 2·35 | ... | ... | 56·15 |
| 1868 | 0·60 | ... | ... | ... | ... | 11·12 | 14·36 | 8·68 | 3·75 | ... | ... | ... | 38·51 |
| 1869 | ... | ... | 0·16 | ... | 0·80 | 5·19 | 8·57 | 4·73 | 12·37 | 0·58 | ... | 0·38 | 32·78 |
| 1870 | ... | ... | 0·10 | 0·02 | ... | 13·14 | 9·55 | 4·41 | 3·49 | 1·89 | 0·11 | ... | 32·71 |
| 1871 | 3·24 | ... | ... | ... | 0·64 | 2·41 | 3·36 | 3·87 | 7·57 | ... | 0·15 | 0·07 | 21·31 |

## KHANDWA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | ... | ... | 0·06 | 0·86 | ... | 3·79 | 17·15 | 4·19 | 9·38 | 0·56 | ... | 2·03 | 38·02 |
| 1873 | 0·60 | 2·01 | 0·05 | ... | 0·66 | 6·32 | 7·42 | 6·47 | 7·39 | ... | ... | ... | 30·92 |
| 1874 | ... | ... | ... | ... | 0·06 | 7·12 | 13·17 | 6·72 | 3·92 | ... | ... | ... | 30·99 |
| 1875 | ... | 1·06 | ... | 0·09 | ... | 4·29 | 7·95 | 7·25 | 10·64 | ... | ... | ... | 31·28 |
| 1876 | ... | ... | ... | ... | ... | 0·85 | 7·51 | 11·62 | 5·85 | ... | ... | ... | 25·83 |
| 1877 | 0·64 | 2·82 | ... | 0·12 | 0·12 | 4·87 | 6·83 | 11·41 | 0·94 | 0·94 | 0·06 | 1·69 | 30·44 |
| 1878 | ... | ... | ... | 0·20 | 0·24 | 4·33 | 13·05 | 16·93 | 8·62 | 0·79 | ... | ... | 44·16 |
| 1879 | ... | 0·11 | ... | ... | 2·80 | 8·54 | 4·20 | 7·23 | 10·18 | 3·87 | ... | ... | 36·93 |
| 1880 | ... | ... | ... | ... | 0·02 | 0·79 | 1·20 | 3·73 | 9·92 | 3·88 | 0·68 | ... | 20·22 |
| 1881 | ... | ... | 1·08 | ... | 0·17 | 3·33 | 17·79 | 3·59 | 5·83 | 1·18 | 0·48 | ... | 33·45 |
| 1882 | .. | ... | ... | 0·03 | 0·17 | 12·47 | 10·62 | 1·79 | 17·22 | 0·15 | 0·31 | ... | 42·76 |
| 1883 | 0·20 | ... | ... | ... | 0·07 | 8·39 | 12·32 | 8·62 | 5·18 | 2·50 | ... | ... | 37·28 |
| Mean | 0·28 | 0·33 | 0·09 | 0·08 | 0·32 | 6·45 | 10·33 | 7·51 | 6·54 | 1·04 | 0·10 | 0·22 | 33·29 |
| 1884 | 1·29 | ... | ... | ... | 0·29 | 8·06 | 12·66 | 2·69 | 13·43 | 0·96 | ... | 0·88 | 40·17 |
| 1885 | 0·19 | ... | ... | 0·19 | 0·29 | 4·75 | 6·61 | 2·99 | 2·20 | 1·65 | 0·48 | 2·57 | 21·92 |
| 1886 | ... | ... | ... | ... | 0·44 | 9·30 | 6·60 | 5·29 | 1·91 | 4·76 | ... | 3·91 | 32·21 |
| Mean | 0·31 | 0·29 | 0·08 | 0·08 | 0·32 | 6·58 | 10·10 | 6·99 | 6·45 | 1·23 | 0·11 | 0·52 | 33·06 |

No. 232. PACHMARHI.

Latitude N. 22° 28′. Longitude E. 78° 28′. Elevation 3,504 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. XII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | 0·54 | 0·21 | ... | ... | 1·00 | 24·48 | 38·38 | 13·08 | 27·68 | ... | ... | 0·77 | 106·14 |
| 1872 | ... | 0·11 | 0·71 | 0·20 | ... | 4·62 | 30·96 | 26·50 | 11·42 | 1·35 | ... | 0·25 | 76·12 |
| 1873 | 0·92 | 0·12 | ... | ... | 0·30 | 2·97 | 24·69 | 21·17 | 23·58 | ... | ... | ... | 73·75 |
| 1874 | ... | ... | ... | ... | ? | 18·21 | 20·82 | ? | 8·29 | ... | ... | ... | ? |
| 1875 | ... | 0·23 | ... | ... | 0·11 | 10·57 | 42·63 | 26·96 | 20·98 | 0·99 | ... | 0·73 | 103·20 |
| 1876 | ... | ... | 0·03 | ... | 1·27 | 3·83 | 35·90 | 22·55 | 21·29 | ... | ... | ... | 84·87 |
| 1877 | 4·04 | 1·58 | 1·76 | 2·76 | 0·22 | 8·79 | 23·17 | 9·67 | 4·73 | 4·82 | ... | 2·73 | 64·27 |
| 1878 | 0·25 | 1·20 | ... | 0·53 | 0·92 | 5·39 | 31·38 | 20·68 | 10·06 | 1·05 | 0·30 | ... | 71·76 |
| 1879 | ... | 0·40 | ... | ... | 1·92 | 7·87 | 11·99 | 30·28 | 16·35 | 4·65 | ... | ... | 73·46 |
| 1880 | ... | ... | ... | ... | 0·29 | 7·48 | 12·56 | 19·50 | 14·44 | 3·59 | 4·16 | ... | 62·02 |
| 1881 | ... | ... | 2·23 | ... | 0·03 | 14·06 | 30·70 | 18·33 | 13·04 | 0·57 | 0·33 | ... | 79·29 |
| 1882 | ... | ... | ... | 0·28 | 1·07 | 10·64 | 54·76 | 9·17 | 5·82 | 0·18 | 1·23 | ... | 83·15 |
| 1883 | 0·37 | ... | 0·02 | ... | 0·43 | 10·89 | 20·55 | 12·15 | 18·99 | 4·01 | ... | ... | 67·41 |
| Mean | 0·47 | 0·30 | 0·37 | 0·29 | 0·63 | 9·98 | 29·11 | 19·17 | 15·13 | 1·63 | 0·46 | 0·34 | 77·88 |
| 1884 | 1·05 | 0·18 | 0·14 | ... | 0·14 | 11·37 | 34·85 | 15·49 | 39·63 | 0·78 | ... | 0·54 | 104·17 |
| 1885 | 0·67 | 0·24 | 0·14 | 0·32 | 1·44 | 18·05 | 15·83 | 15·92 | 2·23 | 1·61 | 0·07 | 5·49 | 62·01 |
| 1886 | 0·10 | ... | 0·54 | ... | 0·68 | 13·76 | 30·78 | 11·55 | 2·71 | 6·93 | ... | 1·14 | 68 19 |
| Mean | 0·50 | 0·27 | 0·35 | 0·26 | 0·65 | 10·81 | 28·75 | 18·20 | 15·08 | 1·91 | 0·38 | 0·73 | 77·89 |

No. 233. BADNUR—(BETUL.)

Latitude N. 21° 54′. Longitude E. 77° 57′. Elevation 2,189 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. XII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | ? | ? | ? | 5·07 | 2·21 | ... | ... | ... | ? |
| 1845 | 0·25 | 1·74 | 1·70 | ... | ... | 7·45 | 11·75 | 13·35 | 0·55 | ... | ... | 2·55 | 39·34 |
| 1846 | ... | 0·37 | ... | 0·05 | 1·32 | 5·30 | 15·55 | 6·95 | 13·00 | 0·80 | ... | ... | 43·34 |
| 1847 | ... | 1·60 | ... | 0·10 | 0·35 | 6·46 | 12·99 | 8·75 | 9·08 | 1·14 | 3·40 | ... | 43·87 |
| 1848 | ... | 0·35 | ... | ... | 1·80 | 7·19 | 5·90 | 10·36 | 3·55 | 0·11 | 1·29 | ... | 30·55 |
| 1849 | 3·45 | ... | ... | 1·22 | 0·62 | 4·07 | 15·75 | 9·80 | 16·42 | 5·91 | ... | 0·09 | 57·33 |
| 1850 | 0·94 | ... | 0·44 | 1·35 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1851 | ... | ... | 0·02 | ... | 1·20 | 3·50 | 14·50 | 8·90 | 3·70 | ... | 0·20 | ... | 32·02 |
| 1852 | ... | ... | 1·00 | ... | 2·00 | 6·21 | ? | 10·70 | 6·60 | ... | ... | ... | ? |
| 1853 | ... | 0·75 | 0·50 | 0·30 | 0·10 | 7·40 | 14·46 | 5·75 | 5·94 | 3·93 | ... | ... | 39·13 |
| 1854 | ... | ... | ... | ... | ... | 5·80 | 18·37 | 2·91 | 8·25 | ... | 1·87 | 1·01 | 38·21 |
| 1855 to 1862 | Not on record. | | | | | | | | | | | | |
| 1863 | ... | ... | 6·70 | 0·10 | 0·10 | 8·90 | ? | ? | 4·16 | 3·95 | ... | ? | ? |
| 1864 | ? | ? | ... | 1·15 | 2·45 | 10·90 | 12·69 | 9·97 | 1·45 | ? | 0·20 | ? | ? |
| 1865 | 2·40 | 1·10 | 0·90 | 0·11 | 0·15 | 4·30 | ? | 12·50 | 6·10 | 1·50 | 0·10 | ... | ? |
| 1866 | ... | ... | ... | ... | ... | ? | 20·00 | 13·80 | 2·30 | ... | ... | ... | ? |
| 1867 | ... | ... | 1·45 | 1·20 | 0·32 | 19·42 | 12·06 | 17·45 | 8·68 | 3·99 | ... | ... | 64·57 |
| 1868 | ... | ... | 2·35 | ... | ... | 2·50 | 6·00 | 4·61 | 5·28 | ... | ... | ... | 20·74 |
| 1869 | ... | ... | 0·21 | ... | 0·34 | 1·35 | 9·66 | 7·47 | 10·01 | 2·27 | ... | 0·63 | 31·94 |
| 1870 | ... | ... | 2·00 | 2·18 | ... | 13·07 | 12·78 | 6·01 | 4·24 | 3·42 | ... | ... | 43·70 |
| 1871 | 2·02 | 0·53 | ... | ... | 0·36 | 11·36 | 12·19 | 3·72 | 15·62 | ... | 1·21 | ... | 47·01 |
| 1872 | ... | ... | 0·04 | 1·17 | ... | 8·07 | 12·17 | 7·63 | 8·02 | 1·00 | ... | 0·94 | 39·04 |
| 1873 | 0·35 | ... | ... | ... | 0·66 | 3·69 | 6·10 | 5·45 | 10·54 | ... | ... | ... | 26·79 |
| 1874 | ... | ... | ... | ... | 0·02 | 5·34 | 15·09 | 6·44 | 3·57 | ... | ... | ... | 30·46 |
| 1875 | ... | 1·45 | ... | ... | ... | 9·49 | 20·30 | 11·87 | 10·57 | 0·03 | ... | 0·52 | 54·23 |
| 1876 | ... | ... | 0·25 | ... | 0·67 | 3·46 | 13·90 | 10·42 | 26·94 | ... | ... | ... | 55·64 |
| 1877 | 3·08 | 0·73 | 0·79 | 0·10 | ... | 9·73 | 11·46 | 13·36 | 2·30 | 5·33 | 0·23 | 2·86 | 49·97 |
| 1878 | 0·05 | 0·64 | 0·40 | 0·29 | 0·74 | 2·91 | 23·63 | 12·33 | 8·52 | 1·38 | ... | ... | 50·89 |
| 1879 | ... | 0·30 | ... | ... | 0·98 | 11·04 | 6·64 | 17·88 | 8·22 | 5·48 | ... | ... | 50·54 |
| 1880 | ... | ... | ... | ... | ... | 6·70 | 6·62 | 5·99 | 15·56 | 2·40 | 1·52 | ... | 38·88 |
| 1881 | ... | ... | 2·58 | ... | 0·29 | 13·55 | 18·02 | 6·32 | 2·98 | 1·55 | 0·51 | ... | 45·80 |
| 1882 | ... | ... | ... | 0·14 | 0·13 | 13·99 | 20·98 | 4·92 | 9·02 | ... | 1·02 | ... | 50·20 |
| 1883 | 0·02 | ... | ... | ... | 0·05 | 8·15 | 8·53 | 7·33 | 9·36 | 6·50 | ... | ... | 39·94 |
| Mean | 0·42 | 0·32 | 0·69 | 0·31 | 0·49 | 7·63 | 13·26 | 8·93 | 7·83 | 1·69 | 0·37 | 0·30 | 42·24 |
| 1884 | 1·10 | ... | 0·03 | 0·10 | 0·12 | 4·21 | 19·89 | 7·32 | 21·26 | 0·55 | ... | 1·60 | 56·18 |
| 1885 | ... | 0·99 | 0·52 | 0·18 | 0·89 | 7·14 | 8·43 | 9·38 | 1·78 | 3·04 | 0·25 | 7·54 | 40·14 |
| 1886 | ... | ... | 0·20 | 0·09 | 1·22 | 7·05 | 13·91 | 8·15 | 1·57 | 1·57 | ... | 0·30 | 34·06 |
| Mean | 0·41 | 0·32 | 0·65 | 0·29 | 0·51 | 7·49 | 13·34 | 8·87 | 7·86 | 1·70 | 0·35 | 0·56 | 42·35 |

No. 234. CHHINDWARA.

Latitude N. 22° 3′. Longitude E. 78° 59′. Elevation 2,236 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. XII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1863 | ... | 0·10 | ... | ... | ... | 13·14 | ? | ? | ? | 4·41 | ... | ... | ? |
| 1864 | ? | ? | ... | 0·35 | 2·09 | 7·28 | 9·55 | 12·36 | 3·07 | ? | 0·30 | ? | ? |
| 1865 | 0·21 | 0·60 | 0·20 | 0·01 | 0·07 | 12·80 | 17·60 | 7·70 | 4·40 | ... | 0·09 | ... | 43·68 |
| 1866 | ... | ... | ... | 0·08 | 0·15 | 7·79 | 10·63 | 9·60 | 2·46 | 0·70 | ... | ... | 31·41 |
| 1867 | ... | ... | 2·23 | 0·27 | 0·60 | 14·33 | 8·22 | 13·16 | 5·76 | 3·67 | ... | ... | 48·24 |
| 1868 | 2·96 | ... | 1·03 | ... | ... | 2·87 | 10·46 | 4·23 | 4·16 | ... | ... | ... | 25·71 |
| 1869 | ... | ... | 0·10 | ... | 1·00 | 7·59 | 13·77 | 12·82 | 14·71 | 0·71 | ... | 0·87 | 51·57 |
| 1870 | 2·22 | ... | 3·29 | 0·55 | ... | 12·32 | 10·12 | 4·49 | 6·31 | 6·77 | ... | ... | 46·07 |
| 1871 | 1·02 | 0·85 | ... | ... | 0·80 | 12·30 | 8·96 | 2·46 | 7·41 | ... | 0·17 | ... | 33·97 |
| 1872 | ... | ... | 0·48 | 0·91 | ... | 10·10 | 11·03 | 12·20 | 11·26 | 1·08 | 0·80 | 0·58 | 48·44 |
| 1873 | ... | 0·76 | 0·48 | ... | 0·12 | 7·65 | 6·50 | 3·94 | 10·17 | ... | 0·26 | 0·48 | 30·36 |
| 1874 | ... | 0·06 | 0·04 | 0·04 | 0·52 | 14·16 | 17·73 | 5·10 | 7·55 | 0·16 | ... | 0·12 | 45·48 |
| 1875 | 0·15 | 0·70 | ... | 0·30 | 0·18 | 9·09 | 15·20 | 6·47 | 15·78 | 2·93 | ... | ... | 50·80 |
| 1876 | ... | ... | ... | ... | ... | 4·87 | 11·31 | 10·43 | 13·85 | 0·25 | ... | ... | 40·71 |
| 1877 | 6·30 | 1·52 | 0·37 | 2·19 | 3·60 | 7·49 | 5·51 | 11·21 | 6·09 | 4·10 | 1·26 | 2·29 | 49·93 |
| 1878 | 0·79 | 1·01 | ... | 0·60 | 0·83 | 1·92 | 24·71 | 12·83 | 5·38 | 5·79 | 0·03 | ... | 53·89 |
| 1879 | ... | 0·71 | ... | ... | 5·49 | 9·13 | 7·78 | 11·71 | 6·72 | 3·13 | ... | ... | 44·67 |
| 1880 | ... | ... | ... | ... | 0·09 | 6·91 | 6·10 | 6·88 | 14·25 | 4·06 | 0·37 | ... | 38·66 |
| 1881 | 0·33 | 0·91 | 2·08 | 0·02 | 0·66 | 12·09 | 13·37 | 12·79 | 9·66 | 0·81 | 0·63 | ... | 52·45 |
| 1882 | ... | 0·02 | 0·02 | 0·76 | 0·14 | 17·09 | 18·57 | 2·39 | 8·36 | ... | 2·79 | ... | 50·14 |
| 1883 | 1·30 | ... | ... | ... | 1·27 | 24·02 | 13·80 | 7·56 | 11·50 | 3·26 | ... | ... | 62·71 |
| Mean | **0·76** | **0·32** | **0·49** | **0·29** | **0·74** | **10·24** | **12·05** | **8·52** | **8·44** | **2·09** | **0·32** | **0·22** | **44·48** |
| 1884 | 1·13 | 0·19 | 0·19 | 0·16 | 0·27 | 7·57 | 13·97 | 6·71 | 17·70 | 2·91 | ... | 1·09 | 51·89 |
| 1885 | ... | 0·91 | 1·52 | 0·05 | 0·49 | 10·63 | 8·00 | 6·94 | 2·49 | 3·59 | 0·18 | 4·76 | 39·56 |
| 1886 | ... | ... | 0·23 | ... | 1·08 | 6·27 | 11·88 | 2·56 | 0·72 | 6·79 | 0·15 | 0·45 | 30·13 |
| Mean | **0·71** | **0·32** | **0·51** | **0·26** | **0·73** | **9·98** | **1·95** | **8·11** | **8·25** | **2·40** | **0·29** | **0·46** | **43·97** |

No. 235. SEONI.

Latitude N. 22° 6′. Longitude E. 79° 33′. Elevation 2,030 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. XII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1844 | ? | ? | ? | ? | ? | 4·90 | 9·48 | 8·74 | 3·68 | ... | ... | ... | ? |
| 1845 | 0·92 | 5·82 | 0·36 | ... | 0·01 | 5·14 | 15·22 | 12·85 | 1·94 | ... | ... | 0·86 | 43·12 |
| 1846 | ... | 2·13 | ... | ... | 0·85 | 8·37 | 19·39 | 3·97 | 9·24 | 0·80 | ... | ... | 44·75 |
| 1847 | ... | 4·10 | 1·80 | ... | 2·94 | 11·86 | 13·42 | 7·73 | 10·15 | 8·02 | 1·83 | ... | 61·85 |
| 1848 | ... | 0·91 | 0·10 | ... | 0·14 | 9·99 | 5·43 | 9·92 | 4·07 | 0·97 | 0·32 | ... | 31·85 |
| 1849 | 4·31 | ... | ... | 0·98 | 0·50 | 6·52 | 13·51 | 11·01 | 2·89 | 6·47 | ... | 0·03 | 46·22 |
| 1850 | 1·64 | 0·68 | ... | 1·93 | ? | ? | ? | ? | ? | ? | ? | ? | ? |

SEONI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1851 to 1862 | Not on record. | | | | | | | | | | | | |
| 1863 | ... | ... | ... | ... | 1·00 | 13·90 | P | P | 2·15 | 1·40 | ... | P | P |
| 1864 | P | P | ... | 2·75 | 4·00 | 7·12 | 13·00 | 12·25 | 6·45 | P | 0·10 | P | P |
| 1865 | 1·15 | 0·90 | 0·40 | 0·01 | 0·04 | 9·05 | 23·40 | 13·00 | 8·50 | 1·50 | ... | ... | 57·95 |
| 1866 | ... | ... | ... | 1·97 | ... | 7·58 | 11·71 | 13·29 | 5·00 | ... | ... | 2·50 | 42·05 |
| 1867 | ... | ... | 1·00 | 2·30 | 0·50 | 9·00 | 12·20 | 19·20 | 7·00 | 1·20 | ... | 0·30 | 52·70 |
| 1868 | 2·00 | ... | 1·40 | ... | 0·20 | 5·50 | 13·00 | 4·50 | 4·40 | ... | ... | 0·40 | 31·40 |
| 1869 | ... | ... | ... | ... | 0·01 | 4·40 | 16·84 | 19·41 | 9·35 | 5·55 | ... | 1·50 | 57·06 |
| 1870 | 1·30 | ... | 1·65 | 0·18 | ... | 16·37 | 23·05 | 6·25 | 5·40 | 4·00 | 1·70 | ... | 59·90 |
| 1871 | ... | 0·40 | ... | ... | 1·40 | 15·60 | 11·82 | 5·60 | 7·66 | ... | 1·60 | 1·20 | 45·28 |
| 1872 | ... | ... | 0·20 | 0·80 | 0·45 | 15·77 | 14·43 | 16·25 | 7·99 | 0·90 | ... | 0·50 | 57·29 |
| 1873 | ... | 0·95 | 1·05 | 0·63 | 1·22 | 3·78 | 11·60 | 7·79 | 14·47 | ... | ... | 1·04 | 42·53 |
| 1874 | 0·20 | ... | ... | ... | 0·45 | 11·92 | 18·59 | 16·20 | 13·45 | ... | ... | 0·10 | 60·91 |
| 1875 | 0·75 | 0·30 | ... | 0·15 | 1·25 | 14·10 | 27·90 | 7·75 | 10·75 | 2·80 | ... | ... | 65·75 |
| 1876 | ... | ... | 0·85 | ... | 0·70 | 4·15 | 12·80 | 10·95 | 10·95 | 1·30 | ... | ... | 41·70 |
| 1877 | 3·80 | 1·60 | 0·68 | 3·50 | 0·70 | 11·85 | 9·65 | 8·55 | 5·00 | 5·96 | 0·25 | 3·33 | 54·86 |
| 1878 | 0·65 | 3·75 | 0·20 | 0·10 | 3·84 | 2·58 | 15·38 | 16·05 | 9·20 | 2·05 | 0·25 | ... | 54·05 |
| 1879 | ... | 2·03 | ... | ... | 2·10 | 15·75 | 9·45 | 16·34 | 4·62 | 2·61 | ... | ... | 52·90 |
| 1880 | ... | ... | ... | 0·01 | 0·16 | 15·74 | 8·72 | 8·18 | 16·14 | 2·50 | 0·15 | ... | 51·60 |
| 1881 | ... | 0·25 | 3·08 | 0·14 | 0·12 | 10·99 | 13·62 | 13·40 | 9·75 | 2·38 | 0·50 | ... | 54·23 |
| 1882 | ... | 0·09 | ... | 0·63 | 0·70 | 8·94 | 23·02 | 5·59 | 6·67 | 0·14 | 3·43 | ... | 49·21 |
| 1883 | 1·16 | ... | 0·02 | ... | 0·23 | 11·83 | 18·64 | 7·49 | 17·77 | 3·38 | ... | ... | 60·52 |
| Mean | 0·69 | 0·92 | 0·47 | 0·60 | 0·90 | 9·73 | 14·82 | 10·86 | 7·95 | 2·07 | 0·38 | 0·47 | 49·86 |
| 1884 | 1·21 | 0·45 | 0·14 | 0·18 | 0·20 | 16·90 | 15·99 | 13·08 | 20·63 | 0·27 | ... | 0·61 | 69·66 |
| 1885 | 0·32 | 1·18 | 1·60 | 0·67 | 1·36 | 13·87 | 17·39 | 11·66 | 3·43 | 0·26 | 0·09 | 7·37 | 59·20 |
| 1886 | 0·31 | 0·25 | 0·59 | ... | 0·72 | 8·15 | 16·60 | 5·29 | 2·37 | 5·11 | 0·13 | 0·62 | 40·14 |
| Mean | 0·68 | 0·89 | 0·50 | 0·56 | 0·89 | 10·05 | 15·01 | 10·77 | 8·04 | 2·05 | 0·35 | 0·73 | 50·52 |

No. 236. MANDLA.

Latitude N. 22° 35′. Longitude E. 80° 24′. Elevation 1,487 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. XII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | P | P | P | P | P | P | P | P | 2·99 | ... | ... | ... | P |
| 1845 | ... | 2·00 | 0·33 | ... | ... | 5·86 | 30·53 | 20·31 | 0·30 | ... | ... | 0·80 | 60·13 |
| 1846 | ... | 1·80 | ... | ... | ... | 7·54 | 27·39 | 12·35 | 9·90 | ... | ... | ... | 58·98 |
| 1847 | ... | 0·79 | ... | 0·31 | ... | 2·98 | 13·89 | 11·18 | 10·19 | 4·90 | 1·10 | ... | 45·34 |
| 1848 | ... | ... | 0·54 | 0·20 | ... | 7·35 | 8·65 | 7·11 | 3·70 | 0·83 | 0·02 | ... | 28·40 |
| 1849 | 4·03 | 0·34 | ... | ... | ... | 7·02 | 15·43 | 9·39 | 9·41 | 4·00 | ... | 0·04 | 49·66 |
| 1850 | 0·05 | ... | ... | ... | P | P | P | P | P | P | P | P | P |

MANDLA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1851 to 1862. | Not on record. | | | | | | | | | | | | |
| 1863 | ... | 1·00 | 0·40 | ... | 0·10 | 10·62 | ? | ? | 6·32 | 4·50 | ... | ? | ? |
| 1864 | ? | ? | ... | 2·00 | 2·90 | ... | 15·80 | 2·50 | 3·30 | ? | 0·19 | ? | ? |
| 1865 | 0·50 | 0·50 | 0·20 | 0·04 | ... | 8·20 | 19·80 | ? | 7·90 | ... | ... | ... | ? |
| 1866 | 0·02 | 0·20 | ... | 0·10 | ... | ? | 19·90 | 14·90 | 5·60 | 0·40 | ... | ... | ? |
| 1867 | .... | 0·10 | 1·10 | 1·55 | ... | 10·80 | 17·60 | 17·40 | 7·00 | 1·10 | ... | ... | 56·65 |
| 1868 | 2·10 | ... | 0·85 | ... | 0·10 | 4·30 | 10·10 | 8·00 | 4·95 | 0·30 | ... | 0·10 | 30·80 |
| 1869 | ... | ... | 2·35 | 0·50 | ... | 3·70 | 21·95 | 21·85 | 9·80 | ... | ... | ... | 60·15 |
| 1870 | 0·70 | 1·70 | 0·72 | 0·50 | ... | 5·15 | 15·15 | 7·35 | 10·20 | 1·70 | ... | ... | 43·17 |
| 1871 | ... | 0·50 | ... | ... | 1·80 | 14·20 | 24·80 | 2·30 | 8·10 | ... | 0·50 | ... | 52·20 |
| 1872 | ... | ... | 0·70 | 0·40 | ... | 19·70 | 15·40 | 20·70 | 6·30 | 5·20 | ... | 1·70 | 61·10 |
| 1873 | ... | 0·15 | 0·70 | ... | 1·20 | 3·30 | 19·70 | 11·50 | 9·05 | ... | ... | 1·50 | 47·10 |
| 1874 | 0·85 | 1·25 | 0·75 | ... | 2·20 | 23·60 | 14·05 | 17·90 | 7·35 | 1·00 | ... | ... | 68·95 |
| 1875 | 0·90 | 0·50 | ... | ... | 0·80 | 14·80 | 26·50 | 10·60 | 4·30 | 3·70 | ... | ... | 62·10 |
| 1876 | ... | ... | 4·50 | ... | 0·30 | 4·40 | 20·85 | 6·45 | 8·55 | 0·35 | ... | ... | 45·40 |
| 1877 | 2·95 | ... | 2·70 | 6·30 | 1·19 | 12·53 | 7·83 | 6·70 | 4·52 | 1·31 | ... | 0·66 | 46·69 |
| 1878 | 0·96 | 1·89 | 0·51 | 1·89 | 1·79 | 4·01 | 10·43 | 17·20 | 6·06 | 0·39 | ... | ... | 45·13 |
| 1879 | ... | 0·94 | ... | ... | 0·98 | 9·92 | 9·60 | 25·03 | 4·86 | 1·52 | ... | ... | 52·85 |
| 1880 | ... | 0·69 | ... | ... | 0·21 | 14·56 | 29·60 | 6·33 | 6·59 | 2·19 | 0·70 | ... | 60·87 |
| 1881 | ... | ... | 3·77 | 0·35 | ... | 7·96 | 29·13 | 12·74 | 6·83 | 0·65 | 0·32 | ... | 61·75 |
| 1882 | ... | ... | 0·16 | 0·50 | 0·25 | 20·62 | 23·16 | 9·18 | 2·62 | 0·37 | 4·10 | ... | 60·96 |
| 1883 | 0·80 | ... | 1·12 | ... | 0·63 | 12·73 | 12·37 | 5·64 | 9·25 | 1·46 | ... | ... | 44·00 |
| Mean | **0·53** | **0·55** | **0·79** | **0·54** | **0·56** | **9·07** | **18·38** | **11·86** | **6·55** | **1·38** | **0·26** | **0·19** | **50·66** |
| 1884 | 0·31 | 1·52 | ... | 0·23 | ... | 12·09 | 24·58 | 14·00 | 14·71 | 0·94 | ... | 0·49 | 68·87 |
| 1885 | 1·36 | 0·88 | 1·14 | 1·01 | 0·98 | 17·12 | 29·95 | 13·85 | 2·46 | 2·88 | 0·14 | 4·84 | 76·61 |
| 1886 | 0·26 | ... | 0·96 | ... | 0·71 | 6·71 | 15·52 | 5·11 | 3·46 | 4·82 | 0·14 | 0·14 | 37·83 |
| Mean | **0·54** | **0·58** | **0·78** | **0·53** | **0·56** | **9·38** | **18·92** | **11·76** | **6·55** | **1·53** | **0·24** | **0·37** | **51·74** |

No. 237. BURHA (BALAGHAT).

Latitude N. 21° 49′. Longitude E. 80° 14′. Elevation 1,040 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. XII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ... | ... | ... | 1·73 | 1·87 | 8·50 | 17·55 | 22·06 | 15·03 | 1·18 | ... | ... | 67·92 |
| 1868 | 2·70 | 2·20 | 0·10 | 0·20 | ... | 10·60 | 9·20 | 12·70 | 5·40 | 0·80 | ... | ... | 43·90 |
| 1869 | ... | ... | 0·30 | 0·40 | ... | 6·52 | 24·30 | 23·40 | 12·00 | 2·92 | ... | 1·00 | 70·84 |
| 1870 | 0·10 | ... | 0·20 | 2·04 | ... | 11·97 | 38·42 | 11·80 | 6·30 | 1·80 | ... | ... | 72·63 |
| 1871 | 0·20 | 0·65 | ... | ... | 0·90 | 29·50 | 21·20 | 12·90 | 10·40 | ... | ... | ... | 75·75 |
| 1872 | ... | 0·10 | ... | 1·00 | ... | 21·50 | 15·80 | 23·30 | 11·30 | 1·20 | ... | ... | 74·20 |
| 1873 | ... | 0·20 | 1·50 | ... | 1·00 | 1·80 | 21·90 | 11·98 | 9·10 | ... | ... | 0·60 | 48·08 |
| 1874 | ... | ... | ... | ... | ... | 14·94 | 16·80 | 19·50 | 4·40 | 0·50 | ... | ... | 56·14 |

BURHA (BALAGHAT)—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | 0·20 | 1·25 | ... | | 0·30 | 18·60 | 28·00 | 12·80 | 7·40 | 2·60 | ... | ... | 71·15 |
| 1876 | ... | ... | 0·40 | ... | 0·80 | 2·00 | 27·70 | 11·20 | 13·70 | 0·30 | ... | ... | 56·10 |
| 1877 | 4·40 | 2·70 | ... | 2·40 | 3·65 | 12·46 | 16·44 | 15·18 | 5·83 | 3·38 | 1·20 | 0·90 | 68·54 |
| 1878 | 0·93 | 1·64 | 0·12 | 0·92 | 1·20 | 6·42 | 21·47 | 22·87 | 8·80 | 0·23 | 0·21 | ... | 64·81 |
| 1879 | ... | 0·75 | ... | ... | 5·74 | 13·46 | 7·56 | 37·21 | 5·23 | 1·84 | ... | ... | 71·79 |
| 1880 | ... | 0·24 | ... | ... | 0·11 | 22·89 | 34·20 | 14·05 | 14·04 | 3·00 | 0·05 | ... | 88·58 |
| 1881 | ... | 0·06 | 1·02 | 0·15 | 0·70 | 11·31 | 26·16 | 15·44 | 5·55 | 1·46 | 1·07 | ... | 62·92 |
| 1882 | ... | 0·29 | ... | 0·33 | 0·22 | 9·69 | 31·68 | 10·21 | 10·57 | 0·24 | 4·39 | ... | 67·62 |
| 1883 | 0·63 | ... | 1·05 | ... | 0·45 | 10·42 | 21·21 | 7·14 | 16·65 | 1·94 | ... | ... | 59·49 |
| Mean | 0·54 | 0·59 | 0·28 | 0·54 | 1·00 | 12·50 | 22·33 | 16·69 | 9·51 | 1·38 | 0·41 | 0·15 | 65·92 |
| 1884 | 0·32 | 0·54 | ... | ... | 0·35 | 13·86 | 40·61 | 20·32 | 19·15 | 2·67 | ... | 0·69 | 98·51 |
| 1885 | 0·07 | 2·65 | 0·96 | 0·53 | 1·46 | 22·89 | 26·21 | 14·80 | 4·18 | 1·95 | 0·21 | 3·06 | 78·97 |
| 1886 | ... | ... | 0·71 | ... | 0·72 | 9·61 | 17·73 | 9·70 | 2·42 | 3·68 | 0·48 | 0·06 | 45·11 |
| Mean | 0·48 | 0·66 | 0·32 | 0·49 | 0·97 | 12·95 | 23·21 | 16·43 | 9·37 | 1·58 | 0·38 | 0·32 | 67·16 |

No. 238. BILASPUR.

Latitude N. 22° 5′. Longitude E. 82°12′. Elevation 850 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. XII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | ... | 1·10 | 0·80 | 0·70 | 17·65 | ? | ? | 9·69 | 4·36 | ... | ? | ? |
| 1864 | ? | ? | 0·16 | 0·50 | 1·94 | 2·90 | ? | 11·12 | 2·92 | ? | 0·16 | ? | ? |
| 1865 | 0·36 | 0·51 | 0·30 | 0·02 | 0·06 | 6·40 | 6·80 | 13·40 | 7·40 | ... | 0·56 | ... | 35·81 |
| 1866 | 0·30 | 0·70 | 1·00 | 0·64 | 0·25 | 4·42 | 15·30 | 12·24 | ... | ... | 1·22 | ... | 36·07 |
| 1867 | ... | ... | 3·33 | 2·84 | 0·65 | 9·13 | 4·97 | 10·83 | 5·03 | 1·82 | ... | 0·10 | 38·70 |
| 1868 | 1·87 | ... | 0·47 | 0·10 | 0·34 | 18·29 | 3·80 | 3·31 | 3·02 | ... | ... | .... | 31·20 |
| 1869 | 0·20 | ... | 2·06 | 0·36 | 0·41 | 3·13 | 22·96 | 12·23 | 9·08 | 3·95 | ... | 0·80 | 55·18 |
| 1870 | 2·38 | 0·15 | 0·94 | 0·41 | ... | 13·63 | 7·32 | 13·69 | 5·84 | 3·89 | 0·33 | ... | 48·58 |
| 1871 | ... | ... | ... | 0·20 | 1·05 | 10·93 | 14·71 | 6·07 | 8·56 | ... | ... | ... | 41·52 |
| 1872 | ... | ... | ... | 0·72 | ... | 9·74 | 13·06 | 8·45 | 7·99 | ... | ... | 2·43 | 42·39 |
| 1873 | ... | ... | 2·13 | ... | 1·03 | 2·38 | 15·36 | 6·83 | 5·84 | ... | ... | 0·31 | 33·88 |
| 1874 | 1·04 | 0·82 | 1·51 | 0·25 | 0·23 | 7·14 | 7·59 | 23·19 | 10·35 | 3·96 | ... | 0·10 | 56·18 |
| 1875 | 0·55 | 0·10 | ... | 0·01 | 0·81 | 9·66 | 14·37 | 5·75 | 8·46 | 1·15 | ... | ... | 40·86 |
| 1876 | ... | ... | ... | ... | 0·22 | 7·88 | 18·64 | 7·81 | 9·51 | 0·15 | ... | ... | 44·21 |
| 1877 | 2·35 | 0·80 | 1·20 | 2·30 | 7·55 | 13·75 | 17·85 | 24·32 | 6·49 | 3·87 | ... | 0·15 | 80·63 |
| 1878 | ... | 1·25 | 0·45 | 6·93 | 3·65 | 11·62 | 5·48 | 17·03 | 4·41 | ... | 2·00 | 0·10 | 42·92 |
| 1879 | ... | ... | ... | ... | 1·22 | 8·45 | 8·12 | 16·49 | 7·23 | 3·14 | ... | ... | 44·65 |
| 1880 | ... | 0·45 | ... | ... | 0·09 | 12·17 | 22·09 | 7·51 | 15·81 | 5·98 | 0·10 | ... | 64·20 |
| 1881 | ... | ... | 3·09 | 0·17 | 1·01 | 8·85 | 22·74 | 18·92 | 9·93 | 0·59 | 0·02 | ... | 65·32 |
| 1882 | 0·32 | 0·35 | 0·06 | 0·88 | 0·20 | 17·30 | 17·23 | 9·36 | 8·39 | 0·85 | 2·43 | ... | 57·37 |
| 1883 | 0·61 | ... | 1·24 | ... | 1·40 | 5·02 | 13·31 | 3·21 | 11·22 | 0·65 | 1·40 | ... | 38·06 |
| Mean | 0·50 | 0·26 | 0·91 | 0·82 | 1·09 | 9·07 | 13·25 | 11·59 | 7·48 | 1·72 | 0·39 | 0·21 | 47·29 |

BILASPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | ... | 0·66 | 0·21 | ... | 0·35 | 7·99 | 18·05 | 11·65 | 18·76 | 1·52 | ... | 0·67 | 59·86 |
| 1885 | 0·75 | 1·41 | 0·05 | 1·85 | 1·54 | 13·02 | 15·20 | 8·44 | 3·99 | 2·15 | 1·03 | 1·66 | 51·09 |
| 1886 | 0·48 | ... | 0·96 | ... | 0·13 | 3·45 | 8·89 | 5·73 | 5·26 | 3·03 | 1·79 | 0·04 | 29·76 |
| Mean | 0·49 | 0·31 | 0·85 | 0·79 | 1·03 | 8·95 | 13·36 | 11·20 | 7·72 | 1·79 | 0·46 | 0·29 | 47·24 |

No. 239. SARAGAON.

Latitude N. 21° 59′. Longitude E. 82° 48′. Elevation 800 feet.

Administration : CENTRAL PROVINCES. Rainfall Province No. XII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | P | P | P | P | P | P | 21·26 | P | P | P | P | P | P |
| 1871 | ... | ... | ... | 0·13 | ... | 12·79 | 16·44 | 9·53 | 7·38 | ... | ... | ... | 46·27 |
| 1872 | ... | 0·10 | ... | 0·47 | ... | 8·77 | 18·68 | 12·74 | 8·99 | ... | ... | ... | 49·75 |
| 1873 | ... | ... | 1·97 | ... | ... | 3·53 | 23·62 | 9·79 | 11·24 | 1·15 | ... | ... | 51·30 |
| 1874 | 0·80 | ... | 0·10 | ... | ... | 8·23 | 10·89 | 20·47 | 10·88 | 1·79 | ... | ... | 53·16 |
| 1875 | 0·20 | 0·09 | ... | ... | ... | 8·09 | 14·83 | 13·59 | 12·23 | 1·00 | ... | ... | 50·03 |
| 1876 | ... | ... | ... | ... | 0·47 | 4·99 | 33·45 | 10·08 | 10·80 | 0·30 | ... | ... | 60·09 |
| 1877 | 1·88 | ... | ... | 2·48 | 1·82 | 8·05 | 7·81 | 18·83 | 8·16 | ... | ... | ... | 49·03 |
| 1878 | ... | 1·35 | 0·30 | 2·80 | 1·20 | 4·57 | 9·57 | 8·86 | 5·90 | 2·02 | 2·40 | 1·06 | 40·03 |
| 1879 | P | P | P | P | P | P | P | P | 9·64 | 7·34 | ... | ... | P |
| 1880 | ... | ... | ... | ... | 0·23 | 3·09 | 29·28 | 17·12 | 15·26 | 3·79 | 0·40 | ... | 69·17 |
| 1881 | ... | ... | 2·48 | ... | ... | 13·12 | 17·46 | 14·07 | 6·05 | 2·10 | 0·06 | ... | 55·34 |
| 1882 | 0·01 | ... | ... | 0·72 | 0·39 | 15·06 | 13·54 | 6·71 | 3·21 | 0·30 | 1·65 | ... | 41·59 |
| 1883 | 0·56 | ... | ... | ... | ... | 6·78 | 11·19 | 4·77 | 13·02 | 0·19 | 0·15 | ... | 36·66 |
| Mean | 0·29 | 0·13 | 0·40 | 0·55 | 0·34 | 8·09 | 17·54 | 12·21 | 9·44 | 1·54 | 0·36 | 0·08 | 50·97 |
| 1884 | ... | 1·03 | ... | ... | ... | 8·07 | 12·45 | 6·67 | 11·59 | 0·75 | ... | 0·14 | 40·70 |
| 1885 | ... | 0·83 | 0·26 | 0·10 | 0·90 | 1·95 | 2·03 | 6·39 | 3·09 | 1·62 | 1·20 | 2·21 | 20·58 |
| 1886 | ... | ... | 0·20 | ... | 0·35 | 3·90 | 10·66 | 3·25 | 3·60 | 3·42 | 1·27 | ... | 26·65 |
| Mean | 0·23 | 0·22 | 0·35 | 0·45 | 0·36 | 7·40 | 15·82 | 10·86 | 8·82 | 1·61 | 0·45 | 0·21 | 46·78 |

No. 240. SAMBALPUR.

Latitude N. 21° 31′. Longitude E. 84° 1′. Elevation 451 feet.

Administration : CENTRAL PROVINCES. Rainfall Province No. XII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | 2·95 | ... | P | ... | 7·77 | 45·09 | 17·72 | 15·05 | 10·05 | 3·07 | 1·45 | 0·66 | 103·81P |
| 1862 | 2·84 | ... | ... | ... | 2·20 | 7·58 | 16·75 | 15·35 | 9·74 | 4·27 | ... | 0·57 | 59·30 |
| 1863 | ... | 2·00 | 1·50 | ... | 0·37 | P | P | P | 6·91 | 3·94 | ... | P | P |

SAMBALPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1864 | ? | ? | 1·10 | 0·10 | 0·13 | 4·81 | 16·82 | 9·85 | 8·08 | ? | 0·30 | ? | ? |
| 1865 | ... | 0·47 | 0·10 | 0·09 | 0·60 | 9·90 | ? | 15·20 | 3·10 | ... | ... | 0·10 | ? |
| 1866 | 0·30 | 1·80 | 1·10 | 2·80 | 0·30 | ? | 9·70 | 18·36 | 10·70 | 0·70 | ... | ... | ? |
| 1867 | ... | 0·81 | 1·66 | 2·35 | 0·90 | 5·97 | 9·83 | 18·10 | 7·27 | 0·92 | 0·60 | ... | 48·41 |
| 1868 | ... | 1·20 | 0·10 | 0·50 | ... | 22·50 | 7·68 | 7·78 | 4·52 | ... | ... | ... | 44·28 |
| 1869 | 0·50 | 1·80 | 0·98 | 0·20 | 0·25 | 10·45 | 18·12 | 7·75 | 7·20 | 7·30 | ... | ... | 54·55 |
| 1870 | 1·16 | ... | 0·82 | ... | 0·20 | 13·62 | 10·92 | 8·87 | 8·19 | 3·81 | 0·46 | ... | 48·05 |
| 1871 | ... | 0·70 | ... | 1·73 | 0·45 | 8·47 | 14·57 | 8·58 | 7·14 | ... | ... | ... | 41·64 |
| 1872 | ... | 0·30 | 0·30 | 0·33 | ... | 19·56 | 19·07 | 18·72 | 8·50 | 2·61 | 0·06 | ... | 69·45 |
| 1873 | ... | ... | 1·33 | ... | 0·36 | 3·15 | 29·59 | 9·72 | 4·77 | 1·75 | ... | 0·37 | 51·04 |
| 1874 | 1·35 | 0·07 | 0·69 | ... | 2·50 | 16·46 | 11·57 | 27·83 | 5·43 | 4·37 | 0·20 | ... | 70·47 |
| 1875 | 1·17 | ... | ... | 0·29 | 0·44 | 7·43 | 23·36 | 15·44 | 14·65 | 2·51 | ... | ... | 65·29 |
| 1876 | ... | ... | 0·81 | .... | 1·12 | 6·49 | 21·93 | 11·32 | 17·74 | 3·77 | ... | ... | 63·18 |
| 1877 | 4·24 | 1·43 | 0·23 | 0·49 | 1·71 | 16·96 | 13·53 | 20·62 | 6·03 | 1·50 | .... | 0·87 | 67·61 |
| 1878 | ... | 0·45 | 0·25 | 2·27 | 3·56 | 2·12 | 11·83 | 12·67 | 5·81 | 2·29 | 0·12 | 2·24 | 43·61 |
| 1879 | ... | 0·30 | ... | ... | 7·85 | 8·09 | 25·07 | 27·95 | 7·57 | 1·70 | ... | ... | 78·53 |
| 1880 | ... | 1·44 | ... | 0·09 | 1·80 | 16·48 | 15·92 | 24·70 | 9·05 | 1·30 | 0·42 | 0·02 | 71·22 |
| 1881 | ... | ... | 2·37 | 0·13 | 1·73 | 9·71 | 26·24 | 16·87 | 6·84 | 8·35 | 0·13 | 0·04 | 72·41 |
| 1882 | 0·15 | 0·23 | 0·18 | 1·65 | 0·57 | 18·84 | 21·87 | 23·32 | 4·95 | 1·23 | 1·96 | ... | 74·95 |
| 1883 | 0·16 | 0·19 | 2·09 | 0·06 | 0·56 | 21·35 | 29·20 | 7·81 | 14·58 | 0·09 | 1·32 | 1·10 | 78·51 |
| Mean | 0·67 | 0·60 | 0·71 | 0·57 | 1·54 | 13·10 | 17·68 | 15·54 | 8·21 | 2·52 | 0·31 | 0·28 | 61·73 |
| 1884 | ... | 0·99 | ... | ... | 0·28 | 8·64 | 18·28 | 18·14 | 22·31 | 0·13 | ... | 0·60 | 69·37 |
| 1885 | ... | 1·40 | 0·54 | 0·43 | 3·58 | 17·85 | 18·49 | 7·61 | 6·44 | 0·74 | 0·23 | 2·59 | 59·90 |
| 1886 | 0·18 | ... | 1·74 | ... | 1·84 | 10·68 | 17·81 | 12·46 | 9·87 | 3·03 | 1·02 | 0·16 | 58·79 |
| Mean | 0·60 | 0·62 | 0·72 | 0·52 | 1·58 | 13·01 | 17·74 | 15·20 | 8·75 | 2·38 | 0·32 | 0·39 | 61·83 |

No. 241. RAIPUR.

Latitude N. 21° 15′. Longitude E. 81° 41′. Elevation 960 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. XII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | ... | 0·30 | .... | ... | ? | ? | ? | 5·15 | ... | 1·21 | .... | ? |
| 1864 | ? | ? | ... | ... | 1·89 | 2·94 | 7·25 | 8·32 | 2·44 | ? | 0·34 | ? | ? |
| 1865 | ... | 0·20 | 0·30 | 0·04 | 0·10 | 9·80 | 9·70 | ? | 14·00 | 1·40 | 7·40 | .... | ? |
| 1866 | ... | 1·57 | 0·37 | 1·32 | 0·24 | 6·96 | 18·34 | 20·64 | 10·65 | 0·87 | 0·14 | 0·65 | 61·75 |
| 1867 | 0·13 | 0·23 | 1·75 | 3·26 | 1·28 | 5·47 | 9·59 | 8·90 | 9·42 | 4·30 | 0·77 | ... | 45·10 |
| 1868 | 1·31 | ... | ... | ... | 0·29 | 9·68 | 11·03 | 10·78 | 2·73 | ... | ... | ... | 35·82 |
| 1869 | ... | ... | 1·39 | 0·02 | 0·22 | 3·08 | 22·78 | 23·74 | 8·23 | 2·41 | ... | 0·15 | 62·02 |
| 1870 | 0·90 | ... | 1·39 | 0·70 | 0·22 | 11·41 | 14·66 | 11·94 | 8·42 | 4·77 | 2·74 | ... | 57·15 |
| 1871 | ... | 0·54 | 0·21 | 0·01 | 1·28 | 11·48 | 13·72 | 2·62 | 8·70 | ... | ... | 0·02 | 38·58 |
| 1872 | ... | ... | 0·23 | 1·29 | ... | 11·88 | 17·56 | 12·44 | 7·02 | 3·41 | ... | 0·37 | 54·20 |
| 1873 | ... | 0·02 | 0·46 | ... | 0·48 | 5·00 | 11·55 | 10·20 | 7·08 | 0·27 | ... | 0·10 | 35·16 |
| 1874 | 0·73 | 0·48 | 0·41 | ... | 0·45 | 19·47 | 21·12 | 19·06 | 7·18 | 3·34 | ... | ... | 72·24 |

RAIPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | 0·25 | ... | ... | 0·11 | 0·85 | 16·51 | 17·97 | 8·05 | 8·01 | 2·11 | ... | ... | 53·86 |
| 1876 | ... | ... | 0·10 | ... | 0·63 | 6·18 | 13·14 | 9·80 | 13·67 | 0·04 | ... | ... | 43·56 |
| 1877 | 3·54 | 0·25 | 0·73 | 3·58 | 2·18 | 10·87 | 5·05 | 16·07 | 0·70 | 2·74 | ... | 0·51 | 46·22 |
| 1878 | 0·09 | 0·29 | ... | 1·00 | 2·22 | 3·67 | 14·88 | 11·71 | 7·26 | 1·93 | 1·24 | 0·99 | 45·28 |
| 1879 | ... | ... | ... | ... | 1·86 | 10·92 | 13·29 | 21·72 | 12·00 | 3·87 | ... | ... | 63·66 |
| 1880 | ... | 0·24 | ... | ... | ... | 11·50 | 12·13 | 10·33 | 10·62 | 0·73 | 0·88 | 0·04 | 46·47 |
| 1881 | ... | 0·49 | 3·75 | 0·29 | 0·52 | 12·87 | 18·39 | 15·20 | 5·47 | 1·09 | 1·01 | ... | 59·08 |
| 1882 | ... | ... | 0·04 | 0·62 | 1·05 | 8·18 | 13·13 | 11·42 | 5·96 | 0·22 | 1·96 | ... | 42·58 |
| 1883 | 0·25 | ... | 1·84 | ... | 0·61 | 15·57 | 10·73 | 7·40 | 8·98 | 1·78 | 0·73 | ... | 47·83 |
| Mean | 0·36 | 0·22 | 0·63 | 0·58 | 0·78 | 9·67 | 13·80 | 12·65 | 7·79 | 1·76 | 0·88 | 0·14 | 49·26 |
| 1884 | 0·14 | 1·20 | ... | ... | ... | 20·64 | 38·93 | 11·25 | 9·71 | 2·13 | ... | 1·88 | 85·88 |
| 1885 | ... | 1·25 | 0·44 | 2·63 | 2·68 | 20·66 | 15·92 | 10·42 | 3·70 | 3·99 | 0·34 | 2·11 | 64·14 |
| 1886 | 0·02 | 0·01 | 0·90 | ... | 2·02 | 4·26 | 9·73 | 3·97 | 8·51 | 9·70 | 0·62 | 0·01 | 39·75 |
| Mean | 0·32 | 0·29 | 0·61 | 0·61 | 0·88 | 10·39 | 14·81 | 12·09 | 7·73 | 2·22 | 0·81 | 0·30 | 51·06 |

No. 242. DHAMTARI.

Latitude N. 20° 42′. Longitude E. 81° 36′. Elevation 1,250 feet.

Administration : CENTRAL PROVINCES. Rainfall Province No. XII.

| Year. | Inches of Rainfall. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ... | ... | ... | ... | ... | 4·70 | 12·40 | 17·00 | 13·30 | 3·00 | ... | ... | 50·40 |
| 1868 | 1·20 | ... | ... | ... | 4·40 | 8·00 | 15·80 | 8·40 | 10·20 | ... | ... | ... | 48·00 |
| 1869 | ... | ... | ... | ... | 0·30 | 4·45 | 13·65 | 10·25 | 9·20 | 7·30 | ... | ... | 45·15 |
| 1870 | 1·20 | 2·50 | 0·50 | ... | 6·40 | 12·80 | 13·60 | 8·75 | 1·45 | 2·00 | ... | ... | 49·20 |
| 1871 | ... | 1·35 | 0·45 | ... | 1·45 | 10·20 | 18·81 | 7·45 | 3·87 | ... | ... | ... | 43·58 |
| 1872 | ... | 0·14 | ... | 1·16 | ... | 12·89 | 23·36 | 17·35 | 4·62 | 1·90 | 0·20 | 0·30 | 61·92 |
| 1873 | ... | 0·45 | ... | ... | 3·25 | 3·79 | 11·28 | 12·71 | 10·81 | 9·50 | ... | ... | 42·79 |
| 1874 | 0·33 | 0·13 | 0·50 | ... | 0·20 | 8·74 | 18·29 | 8·13 | 7·22 | 2·60 | ... | ... | 46·14 |
| 1875 | 1·17 | ... | ... | ... | ... | 14·04 | 24·32 | 5·62 | 2·01 | 5·16 | ... | ... | 52·32 |
| 1876 | ... | ... | ... | ... | ... | 6·61 | 13·10 | 10·14 | 9·40 | ... | ... | ... | 39·25 |
| 1877 | 0·57 | 0·52 | 0·20 | 1·71 | 0·98 | 3·96 | 11·25 | 9·09 | 0·55 | 1·49 | ... | 1·30 | 31·62 |
| 1878 | ... | ... | ... | 0·41 | 2·75 | 2·70 | 8·40 | 6·41 | 8·05 | 0·30 | 1·44 | ... | 30·46 |
| 1879 | ... | ... | ... | ... | 2·85 | 8·28 | 6·55 | 18·47 | 10·03 | 2·43 | 0·47 | ... | 49·08 |
| 1880 | ... | ... | ... | ... | ... | 10·51 | 7·15 | 7·35 | 6·00 | 6·86 | 0·60 | 0·02 | 38·49 |
| 1881 | ... | 0·27 | 2·48 | 0·10 | ... | 8·46 | 12·82 | 11·80 | 5·48 | 1·57 | 0·10 | ... | 43·08 |
| 1882 | ... | ... | ... | 0·40 | 1·10 | 8·84 | 23·71 | 6·71 | 10·40 | 0·35 | 3·39 | ... | 54·90 |
| 1883 | 0·15 | ... | 1·66 | 0·20 | ... | 10·88 | 17·50 | 6·38 | 13·23 | 1·63 | 0·58 | ... | 52·21 |
| Mean | 0·27 | 0·32 | 0·34 | 0·23 | 1·39 | 8·23 | 14·82 | 10·12 | 7·40 | 2·18 | 0·40 | 0·10 | 45·80 |

DHAMTARI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 0·21 | 2·14 | ... | ... | ... | 10·58 | 28·65 | 7·90 | 5·14 | 0·15 | ... | 0·30 | 55·07 |
| 1885 | ... | 0·70 | ... | ... | 3·71 | 35·56 | 15·91 | 9·50 | 5·20 | 2·15 | 0·52 | 1·65 | 74·90 |
| 1886 | ... | ... | 0·55 | ... | 2·50 | 8·70 | 15·19 | 6·90 | 7·53 | 2·54 | 0·70 | ... | 44·61 |
| Mean | 0·24 | 0·41 | 0·32 | 0·20 | 1·49 | 9·73 | 15·59 | 9·81 | 7·18 | 2·10 | 0·40 | 0·18 | 47·65 |

No. 243. BHANDARA.

Latitude N. 21° 9'. Longitude E. 79° 42'. Elevation 854 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. XII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | ... | ... | ... | 1·00 | 8·77 | ? | ? | 11·98 | ... | ... | ? | ? |
| 1864 | ? | | 0·90 | 0·50 | 9·00 | 2·53 | 22·26 | 9·58 | 4·95 | ? | 0·80 | ? | ? |
| 1865 | 4·20 | 8·10 | 0·90 | 1·00 | 0·40 | 5·90 | 15·00 | 11·20 | 5·40 | 1·40 | ?·10 | ... | 53·60 |
| 1866 | ... | ... | ... | 1·10 | ... | ? | 14·90 | 18·20 | 8·60 | ... | ... | ... | ? |
| 1867 | ... | ... | ... | 1·78 | 1·25 | 1·40 | 12·10 | 15·37 | 15·71 | 10·89 | 1·35 | ... | 59·85 |
| 1868 | 3·93 | 0·90 | 0·96 | ... | 0·02 | 5·11 | 11·11 | 5·99 | 2·70 | ... | ... | ... | 30·72 |
| 1869 | ... | ... | 2·54 | 0·17 | ... | 4·17 | 17·11 | 13·82 | 6·21 | 1·15 | ... | 0·80 | 45·97 |
| 1870 | 4·99 | ... | 0·30 | 0·58 | ... | 12·74 | 15·20 | 3·77 | 6·60 | 2·40 | 0·40 | ... | 46·98 |
| 1871 | ... | 0·42 | ... | 0·20 | 0·78 | 17·64 | 19·20 | 3·76 | 10·43 | ... | ... | ... | 52·43 |
| 1872 | ... | ... | ... | 1·70 | ... | 7·90 | 24·59 | 15·52 | 5·94 | 0·62 | ... | ... | 56·27 |
| 1873 | ... | 0·30 | 1·10 | ... | 0·30 | 1·54 | 13·19 | 12·14 | 18·44 | ... | ... | ... | 47·01 |
| 1874 | 1·77 | 0·22 | ... | ... | 0·50 | 8·63 | 16·56 | 13·25 | 9·66 | 1·02 | ... | ... | 51·61 |
| 1875 | ... | 1·10 | ... | ... | 1·26 | 9·66 | 21·69 | 14·55 | 8·98 | 0·98 | ... | ... | 58·22 |
| 1876 | ... | ... | ... | ... | 0·50 | 5·65 | 11·04 | 14·17 | 6·87 | 0·22 | ... | ... | 38·45 |
| 1877 | 4·10 | ... | 0·20 | 3·53 | 2·78 | 9·49 | 15·65 | 16·38 | 7·48 | 1·26 | 0·34 | 0·74 | 61·95 |
| 1878 | 0·81 | 0·96 | 0·40 | 1·10 | 1·43 | 3·36 | 21·61 | 17·57 | 9·43 | 1·86 | ... | ... | 58·53 |
| 1879 | ... | 0·19 | ... | ... | 4·20 | 5·89 | 6·58 | 22·51 | 7·43 | 2·04 | ... | ... | 48·84 |
| 1880 | ... | ... | ... | ... | 0·23 | 16·88 | 22·44 | 6·60 | 13·35 | 3·89 | 0·01 | ... | 63·40 |
| 1881 | ... | ... | 2·82 | 6·27 | ... | 16·83 | 18·77 | 19·66 | 7·69 | 0·03 | 1·13 | ... | 67·20 |
| 1882 | 0·48 | 0·11 | 0·04 | ... | 0·69 | 4·36 | 24·45 | 6·85 | 12·44 | 0·02 | 2·43 | ... | 51·87 |
| 1883 | 0·48 | ... | 0·15 | ... | 0·37 | 19·52 | 10·74 | 14·23 | 18·31 | 4·32 | ... | ... | 68·12 |
| Mean | 1·04 | 0·62 | 0·49 | 0·57 | 1·18 | 8·40 | 16·71 | 12·76 | 9·46 | 1·60 | 0·31 | 0·08 | 53·22 |
| 1884 | 0·52 | 0·04 | ... | ... | 0·18 | 4·57 | 24·39 | 16·41 | 14·19 | 0·15 | ... | 1·57 | 62·02 |
| 1885 | ... | 0·65 | 3·24 | 1·42 | 1·73 | 13·32 | 16·50 | 9·57 | 2·32 | 2·77 | 0·68 | 5·48 | 57·48 |
| 1886 | 0·35 | ... | 0·17 | ... | 0·79 | 6·51 | 24·02 | 5·36 | 7·53 | 4·45 | ... | 0·21 | 49·39 |
| Mean | 0·94 | 0·56 | 0·57 | 0·5 | 1·14 | 8·36 | 17·34 | 12·45 | 9·28 | 1·72 | 0·30 | 0·40 | 53·62 |

No. 244. NAGPUR.

Latitude N. 21° 9′. Longitude E. 79° 11′. Elevation 1,025 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. XII

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1826 | 2·30 | ... | ... | ... | 1·10 | 22·23 | 12·00 | 18·50 | 0·13 | 0·04 | 1·31 | ... | 57·61 |
| 1827 | 0·40 | 0·50 | 3·84 | 0·01 | 6·21 | 6·25 | 14·95 | 7·51 | 16·32 | ... | 2·89 | 0·13 | 53·01 |
| 1828 | 0·19 | 1·21 | 0·71 | 0·06 | 1·55 | 8·37 | 9·33 | 9·07 | 9·40 | 6·40 | 0·20 | ... | 46·49 |
| 1829 | ... | 0·76 | 2·49 | 0·06 | ... | 8·07 | 15·94 | 7·89 | 6·32 | 8·22 | ... | 0·50 | 50·25 |
| 1830 | ... | ... | 1·57 | 0·68 | 1·35 | 8·34 | 7·10 | 7·00 | 4·78 | 1·98 | ... | ... | 32·80 |
| 1831 | ... | ... | ... | ... | ... | 13·78 | 7·22 | 14·58 | 11·98 | 7·24 | 2·27 | 8·24 | 65·31 |
| 1832 | ... | 2·98 | ... | ... | ... | 8·01 | 14·49 | 3·46 | 7·77 | ... | ... | ... | 36·71 |
| 1833 to 1853 | Not on record. | | | | | | | | | | | | |
| 1854 | P | P | P | P | P | 6·43 | 24·81 | 4·44 | 9·57 | 3·15 | ... | ... | P |
| 1855 | 0·98 | 0·45 | 0·52 | 0·11 | ... | 5·40 | 7·50 | 3·60 | 4·45 | 3·09 | ... | ... | 26·10 |
| 1856 | ... | ... | ... | ... | 2·03 | 7·20 | 24·00 | 10·02 | 2·79 | 0·32 | ... | ... | 46·36 |
| 1857 | 0·14 | 0·06 | 0·04 | 0·62 | 1·91 | 10·52 | 4·46 | 8·56 | 7·17 | 2·75 | ... | ... | 36·23 |
| 1858 | ... | 2·07 | 0·41 | ... | 0·84 | 3·85 | 11·96 | 5·88 | 9·60 | 0·58 | ... | ... | 35·19 |
| 1859 | ... | ... | ... | 3·93 | 0·28 | 6·59 | 6·36 | 14·94 | 1·51 | 0·08 | ... | 0·71 | 34·40 |
| 1860 | ... | 0·41 | 0·05 | ... | 0·15 | 4·76 | 15·23 | 8·72 | 15·76 | 0·03 | ... | ... | 45·11 |
| 1861 | 3·11 | ... | 0·54 | ... | 1·35 | 13·84 | 17·16 | 8·63 | 1·26 | ... | ... | ... | 45·89 |
| 1862 | 0·12 | ... | ... | 0·05 | 0·98 | 10·48 | 1·57 | 11·02 | 6·66 | 3·56 | 1·07 | 0·31 | 35·82 |
| 1863 | 0·12 | ... | 1·59 | ... | 0·52 | 10·44 | 15·66 | 4·24 | 6·51 | 0·61 | ... | ... | 39·69 |
| 1864 | 2·04 | ... | ... | 0·74 | 1·95 | 7·34 | 9·10 | 8·52 | 4·00 | ... | 0·97 | ... | 34·66 |
| 1865 | ... | ... | 3·60 | 1·30 | 1·00 | 10·60 | 13·46 | 8·60 | 3·70 | 1·80 | 0·50 | ... | 44·56 |
| 1866 | ... | 1·90 | ... | ... | ... | 6·20 | 10·10 | 14·42 | 8·89 | 1·40 | ... | 0·20 | 43·11 |
| 1867 | ... | ... | 0·34 | 2·60 | 1·04 | 14·50 | 12·70 | 10·70 | 13·28 | 2·54 | ... | 0·05 | 57·75 |
| 1868 | 4·84 | ... | 0·72 | ... | 0·65 | 4·00 | 8·87 | 4·66 | 1·67 | 0·08 | ... | ... | 25·49 |
| 1869 | ... | ... | 0·68 | 0·20 | ... | 4·12 | 8·62 | 9·61 | 7·30 | 2·46 | ... | 0·39 | 33·38 |
| 1870 | 2·14 | ... | 0·98 | 0·57 | 0·01 | 9·49 | 18·98 | 1·78 | 5·00 | 2·09 | 0·59 | ... | 41·63 |
| 1871 | 0·17 | 0·20 | ... | ... | 1·33 | 12·80 | 17·15 | 2·04 | 12·86 | ... | ... | 0·20 | 46·75 |
| 1872 | ... | ... | 0·06 | 1·01 | ... | 4·01 | 7·44 | 9·35 | 14·80 | 4·22 | ... | 0·05 | 40·94 |
| 1873 | ... | 1·02 | 0·70 | 0·35 | 0·58 | 4·80 | 6·03 | 8·02 | 9·11 | ... | ... | 0·02 | 30·63 |
| 1874 | ... | 0·25 | ... | ... | 0·57 | 8·53 | 19·43 | 7·33 | 4·61 | 0·04 | ... | 0·12 | 40·88 |
| 1875 | 0·39 | 1·50 | ... | 0·11 | ... | 12·57 | 20·84 | 8·73 | 6·84 | 3·88 | ... | ... | 54·86 |
| 1876 | ... | ... | 0·17 | ... | 0·37 | 2·81 | 13·95 | 10·15 | 9·06 | 0·91 | ... | ... | 37·42 |
| 1877 | 4·23 | 0·66 | 0·25 | 2·16 | 1·09 | 9·88 | 14·86 | 12·76 | 4·53 | 4·76 | 0·10 | 1·57 | 56·85 |
| 1878 | ... | 0·65 | 0·96 | 1·54 | 1·30 | 3·86 | 17·91 | 19·46 | 12·78 | 4·37 | ... | ... | 62·83 |
| 1879 | ... | 0·63 | ... | ... | 5·92 | 13·46 | 8·48 | 13·50 | 6·54 | 3·65 | ... | ... | 52·18 |
| 1880 | ... | ... | ... | ... | 0·34 | 9·21 | 8·06 | 2·91 | 10·31 | 2·64 | 0·07 | ... | 33·54 |
| 1881 | 0·03 | ... | 2·13 | ... | 0·76 | 19·71 | 14·28 | 11·56 | 10·24 | 0·44 | 0·61 | ... | 59·76 |
| 1882 | 0·42 | 0·02 | 0·02 | 0·11 | 0·27 | 8·92 | 23·44 | 1·85 | 9·88 | 0·11 | 4·79 | ... | 49·83 |
| 1883 | 0·39 | ... | 0·34 | ... | 0·27 | 11·37 | 15·21 | 12·17 | 15·72 | 5·98 | ... | ... | 61·45 |
| Mean | 0·61 | 0·42 | 0·63 | 0·45 | 0·83 | 8·99 | 12·94 | 8·82 | 7·92 | 2·15 | 0·41 | 0·34 | 44·51 |
| 1884 | 1·25 | ... | 0·11 | 0·01 | 0·20 | 4·08 | 18·99 | 15·02 | 13·74 | 0·22 | ... | 2·68 | 56·30 |
| 1885 | ... | 0·57 | 1·40 | 1·47 | 2·10 | 9·70 | 17·22 | 7·13 | 3·01 | 1·08 | 0·53 | 4·17 | 48·38 |
| 1886 | 0·02 | 0·34 | 0·30 | ... | 0·08 | 5·95 | 16·03 | 6·97 | 3·38 | 9·65 | 0·03 | 0·60 | 43·35 |
| Mean | 0·60 | 0·41 | 0·63 | 0·45 | 0·82 | 8·81 | 13·27 | 8·88 | 7·83 | 2·26 | 0·40 | 0·50 | 44·86 |

No. 245. ARVI.

Latitude N. 21° 0′. Longitude E. 78° 16′. Elevation 1,200 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. XII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1869 | P | P | P | P | P | 1·73 | 4·50 | 13·19 | 8·80 | 1·60 | ... | 1·00 | P |
| 1870 | 2·35 | ... | 2·20 | ... | ... | 7·50 | 16·20 | 3·05 | 5·75 | 4·75 | 1·40 | ... | 43·20 |
| 1871 | 4·40 | ... | ... | ... | 0·60 | 3·91 | 10·15 | 0·75 | 4·71 | ... | ... | ... | 24·52 |
| 1872 | ... | ... | ... | 1·30 | 0·10 | 7·90 | 12·50 | 5·00 | 11·20 | 1·70 | ... | ... | 39·70 |
| 1873 | ... | 0·60 | 0·10 | ... | 0·22 | 4·50 | 4·46 | 6·40 | 8·75 | ... | 0·40 | ... | 25·37 |
| 1874 | ... | ... | ... | ... | 0·35 | 5·55 | 11·57 | 3·85 | 7·46 | 0·90 | ... | ... | 29·68 |
| 1875 | 1·05 | ... | ... | ... | ... | 9·90 | 8·95 | 6·95 | 6·15 | 1·75 | ... | ... | 34·75 |
| 1876 | ... | ... | 3·00 | ... | ... | 0·19 | 0·32 | 5·59 | 10·23 | ... | ... | ... | 19·33 |
| 1877 | 1·91 | 1·05 | 0·30 | 0·55 | ... | 3·01 | 4·67 | 5·62 | 4·73 | 2·18 | 0·22 | 3·39 | 27·63 |
| 1878 | ... | 0·40 | ... | 0·12 | 0·40 | 4·98 | 13·37 | 19·74 | 9·55 | 4·50 | ... | ... | 53·06 |
| 1879 | ... | 0·25 | ... | ... | 6·30 | 8·88 | 6·34 | 14·88 | 8·88 | 4·27 | ... | ... | 49·80 |
| 1880 | ... | ... | ... | ... | 0·35 | 5·24 | 5·72 | 2·58 | 6·81 | 1·12 | 0·81 | ... | 22·63 |
| 1881 | ... | ... | 1·81 | 0·14 | 0·47 | 9·84 | 9·95 | 14·25 | 8·15 | ... | 0·24 | ... | 44·85 |
| 1882 | ... | ... | 0·16 | 0·29 | 0·21 | 6·31 | 12·97 | 2·03 | 6·41 | ... | 1·74 | ... | 30·12 |
| 1883 | 0·34 | ... | ... | ... | ... | 8·70 | 10·71 | 14·71 | 11·16 | 3·20 | ... | ... | 48·82 |
| Mean | 0·72 | 0·16 | 0·54 | 0·17 | 0·64 | 5·88 | 8·82 | 7·90 | 7·92 | 1·73 | 0·32 | 0·29 | 35·09 |
| 1884 | 0·30 | 0·08 | 0·11 | ... | ... | 5·43 | 13·81 | 7·81 | 16·59 | 0·60 | ... | 0·15 | 44·88 |
| 1885 | ... | 0·77 | 1·31 | 0·33 | 0·55 | 6·60 | 10·15 | 8·09 | 2·81 | 1·22 | 0·26 | 4·51 | 36·60 |
| 1886 | ... | ... | ... | ... | 5·19 | 7·85 | 12·95 | 2·45 | 0·84 | 14·59 | ... | 0·32 | 44·19 |
| Mean | 0·61 | 0·19 | 0·53 | 0·16 | 0·87 | 6·00 | 9·40 | 7·60 | 7·72 | 2·35 | 0·28 | 0·52 | 36·23 |

No. 246. WARDHA.

Latitude N. 20° 45′. Longitude E. 78° 39′. Elevation 800 feet.

Adminstration: CENTRAL PROVINCES. Rainfall Province No. XII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1863 | 0·10 | ... | 2·20 | 0·65 | ... | 8·53 | P | P | 10·29 | 0·21 | 0·20 | P | P |
| 1864 | P | P | ... | 0·13 | ... | P | P | 9·26 | 3·77 | P | 0·60 | P | P |
| 1865 | ... | 1·81 | 0·20 | ... | 0·70 | 3·80 | 13·20 | 12·80 | 12·30 | ... | 0·90 | 0·10 | 45·81 |
| 1866 | ... | ... | 0·30 | 1·01 | 1·07 | 5·13 | 9·88 | 12·11 | 7·12 | 0·44 | ... | ... | 37·06 |
| 1867 | ... | ... | ... | 0·32 | 0·30 | 12·11 | 7·76 | 17·64 | 10·86 | 1·53 | ... | ... | 50·52 |
| 1868 | 2·02 | ... | 0·15 | ... | 0·03 | 5·28 | 7·95 | 6·98 | 3·27 | ... | ... | ... | 25·68 |
| 1869 | ... | ... | ... | 0·27 | 0·10 | 1·18 | 3·37 | 13·67 | 7·15 | 2·20 | ... | 0·35 | 28·29 |
| 1870 | 2·90 | ... | 0·95 | 0·70 | ... | 4·90 | 22·59 | 6·20 | 4·50 | 4·43 | 0·62 | ... | 47·79 |
| 1871 | 0·10 | 0·10 | ... | 0·10 | 1·33 | 4·84 | 13·94 | 1·20 | 7·58 | ... | ... | ... | 29·19 |
| 1872 | ... | ... | ... | 0·99 | ... | 4·67 | 10·08 | 6·04 | 7·51 | 3·84 | ... | ... | 33·13 |
| 1873 | ... | 0·40 | ... | 0·20 | 1·00 | 6·10 | 7·05 | 8·22 | 6·88 | ... | ... | ... | 29·85 |
| 1874 | ... | 0·45 | ... | ... | 0·44 | 5·68 | 14·01 | 2·22 | 6·78 | 0·38 | 0·22 | ... | 30·18 |
| 1875 | ... | 0·71 | ... | 0·15 | 2·47 | 10·15 | 12·72 | 7·47 | 7·22 | 8·48 | ... | ... | 49·37 |

WARDHA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | ... | ... | ... | 1·69 | 11·70 | 10·79 | 7·84 | 0·03 | ... | ... | 32·05 |
| 1877 | 1·73 | 1·00 | ... | 1·78 | 0·69 | 5·07 | 11·58 | 5·32 | 4·34 | 2·29 | 0·20 | 1·82 | 35·76 |
| 1878 | ... | 0·55 | 0·17 | 0·90 | 0·48 | 4·31 | 15·11 | 21·59 | P | 3·24 | ... | ... | P |
| 1879 | ... | 0·73 | ... | ... | 5·18 | 7·91 | 10·49 | 14·84 | 4·06 | 2·22 | ... | ... | 45·43 |
| 1880 | ... | ... | ... | ... | 1·30 | 4·86 | 11·56 | 3·71 | 10·31 | 1·78 | 0·62 | ... | 34·14 |
| 1881 | 0·06 | 0·09 | 3·56 | ... | 1·06 | 15·01 | 17·00 | 9·19 | 11·58 | 2·75 | 1·04 | ... | 61·34 |
| 1882 | 0·24 | ... | ... | 0·04 | 0·75 | 7·76 | 18·77 | 2·95 | 10·80 | ... | 3·07 | ... | 44·38 |
| 1883 | 0·17 | ... | ... | ... | 0·08 | 14·81 | 11·88 | 12·55 | 17·05 | 7·33 | 0·21 | ... | 64·08 |
| Mean | 0·37 | 0·29 | 0·36 | 0·34 | 0·81 | 6·69 | 12·14 | 9·24 | 8·06 | 2·06 | 0·37 | 0·12 | 40·85 |
| 1884 | 0·18 | ... | ... | ... | 0·19 | 2·32 | 20·52 | 12·60 | 16·96 | 0·42 | ... | 3·00 | 56·19 |
| 1885 | ... | 0·09 | 0·45 | 1·27 | 1·75 | 5·58 | 12·55 | 5·42 | 3·54 | 1·78 | 0·73 | 5·33 | 38·49 |
| 1886 | ... | ... | ... | ... | 1·66 | 6·66 | 7·49 | 3·87 | 1·59 | 6·48 | 0·44 | 0·55 | 28·74 |
| Mean | 0·33 | 0·26 | 0·33 | 0·35 | 0·86 | 6·45 | 12·33 | 8·98 | 7·97 | 2·17 | 0·37 | 0·51 | 40·91 |

No. 247. HINGANGHAT.

Latitude N. 20° 34′. Longitude E. 78° 53′. Elevation 800 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. XII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | ... | 0·35 | 0·05 | 0·10 | 8·50 | P | P | 7·26 | 0·48 | 0·32 | P | P |
| 1864 | P | P | 0·10 | 0·57 | 0·87 | 5·15 | 11·26 | 5·75 | 8·66 | P | 0·70 | P | P |
| 1865 | ... | 2·38 | 0·10 | 0·07 | 0·50 | 10·50 | 15·90 | 9·50 | 12·90 | 0·10 | 0·27 | ... | 52·22 |
| 1866 | ... | ... | 0·10 | ... | ... | P | 7·50 | P | 9·80 | 1·40 | ... | ... | P |
| 1867 | ... | ... | 0·50 | 4·69 | 3·90 | 12·83 | 17·08 | 14·06 | 11·83 | 5·19 | ... | ... | 70·08 |
| 1868 | 1·00 | ... | 0·61 | 0·03 | ... | 7·88 | 7·53 | 9·27 | 2·49 | ... | ... | ... | 28·81 |
| 1869 | ... | ... | ... | ... | ... | 6·19 | 9·38 | 10·96 | 8·64 | 3·07 | ... | 0·38 | 38·62 |
| 1870 | 2·57 | ... | 1·15 | 0·74 | ... | 7·45 | 27·14 | 2·75 | 2·10 | 4·52 | 0·35 | ... | 48·77 |
| 1871 | ... | ... | ... | ... | 0·34 | 7·22 | 12·38 | 2·45 | 8·47 | ... | 0·75 | ... | 31·61 |
| 1872 | ... | ... | ... | 0·21 | ... | 4·00 | 18·80 | 4·35 | 6·84 | 2·05 | ... | ... | 86·25 |
| 1873 | ... | ... | ... | ... | 0·50 | 2·23 | 10·40 | 8·11 | 8·15 | ... | ... | ... | 29·39 |
| 1874 | ... | 0·37 | 0·20 | ... | 1·41 | 8·05 | 15·67 | 3·55 | 5·40 | 0·15 | 0·15 | ... | 34·95 |
| 1875 | ... | 0·80 | ... | 0·16 | 0·30 | 9·25 | 11·17 | 10·94 | 9·34 | 6·28 | ... | ... | 48·24 |
| 1876 | ... | ... | ... | ... | 0·70 | 2·50 | 12·68 | 11·58 | 6·12 | 1·27 | ... | ... | 34·85 |
| 1877 | 2·63 | 0·88 | 0·23 | 2·10 | 0·53 | 3·09 | 12·43 | 7·53 | 3·79 | 2·73 | ... | 1·13 | 37·07 |
| 1878 | 0·01 | 0·02 | 0·20 | 0·37 | 0·30 | 5·72 | 18·00 | 18·70 | P | 4·70 | ... | ... | P |
| Mean | 0·41 | 0·30 | 0·22 | 0·56 | 0·59 | 6·70 | 13·82 | 8·54 | 7·45 | 2·11 | 0·16 | 0·11 | 40·97 |

No. 248. BRAHMAPURI.

Latitude N. 20° 37′. Longitude E. 79° 54′. Elevation 700 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. XII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1867 | ... | ... | ... | 2·00 | ... | 8·63 | 15·55 | 24·56 | 12·00 | 1·68 | ... | 0·37 | 64·79 |
| 1868 | 3·49 | 0·19 | 0·24 | ... | 0·41 | 6·71 | 20·58 | 11·15 | 4·25 | ... | ... | ... | 47·02 |
| 1869 | ... | ... | 1·60 | ... | 1·41 | 4·26 | 7·20 | 11·30 | 12·28 | 2·92 | ... | 0·95 | 41·02 |
| 1870 | 1·55 | ... | 1·13 | ... | ... | 9·83 | 21·10 | 5·98 | 5·89 | 6·77 | 0·10 | ... | 52·35 |
| 1871 | 0·10 | 0·25 | 0·16 | ... | 0·48 | 15·87 | 28·26 | 2·63 | 9·84 | ... | ... | ... | 57·59 |
| 1872 | ... | ... | 0·03 | 1·71 | ... | 4·48 | 26·05 | 12·94 | 8·96 | 4·70 | ... | 3·30 | 62·17 |
| 1873 | ... | ... | 0·10 | ... | 1·63 | 1·46 | 13·94 | 14·66 | 13·62 | ... | ... | ... | 45·41 |
| 1874 | 0·47 | ... | 0·30 | ... | 0·10 | 12·53 | 12·94 | 10·98 | 10·19 | 0·15 | 0·10 | ... | 47·76 |
| 1875 | 0·95 | ... | ... | ... | ... | 14·37 | 23·56 | 14·22 | 8·39 | 5·86 | 0·10 | ... | 67·45 |
| 1876 | ... | ... | ... | ... | ... | 2·32 | 13·68 | 7·32 | 11·38 | 0·12 | ... | ... | 34·82 |
| 1877 | 2·00 | 0·30 | 2·10 | 1·19 | 3·44 | 7·08 | 11·70 | 15·75 | 2·84 | 2·38 | ... | 0·55 | 49·33 |
| 1878 | ... | 0·30 | 0·99 | 1·25 | 1·55 | 4·10 | 21·38 | 25·06 | 5·68 | 2·07 | 0·27 | ... | 62·65 |
| 1879 | ... | 0·68 | ... | ... | 3·78 | 16·09 | 3·54 | 16·96 | 18·02 | 2·24 | 0·55 | ... | 61·86 |
| 1880 | ... | 0·65 | 0·19 | ... | ... | 8·88 | 14·62 | 7·28 | 13·48 | 2·62 | 0·32 | ... | 48·04 |
| 1881 | ... | ... | 4·00 | 0·19 | ... | 12·21 | 21·51 | 17·08 | 5·67 | 1·09 | 1·92 | ... | 64·27 |
| 1882 | 0·10 | ... | ... | 0·15 | 1·61 | 6·59 | 30·69 | 3·17 | 9·27 | 0·58 | 2·61 | ... | 54·77 |
| 1883 | 0·15 | ... | 0·45 | ... | ... | 12·56 | 22·45 | 10·56 | 12·94 | 3·27 | ... | ... | 62·38 |
| Mean | 0·52 | 0·15 | 0·66 | 0·38 | 0·85 | 8·70 | 18·16 | 12·48 | 9·69 | 2·14 | 0·35 | 0·25 | 54·33 |
| 1884 | ... | 0·06 | ... | 0·06 | 0·54 | 8·86 | 25·77 | 19·69 | 12·82 | 0·17 | ... | 2·69 | 70·66 |
| 1885 | ... | 1·13 | 1·38 | 0·18 | 2·19 | 17·07 | 21·82 | 10·88 | 2·91 | 4·29 | 0·95 | 8·26 | 66·06 |
| 1886 | ... | ... | 0·52 | ... | 0·45 | 13·35 | 17·03 | 10·05 | 1·29 | 3·03 | ... | ... | 45·72 |
| Mean | 0·44 | 0·18 | 0·66 | 0·34 | 0·88 | 9·36 | 18·67 | 12·64 | 9·09 | 2·20 | 0·35 | 0·51 | 55·32 |

No. 249. CHANDA.

Latitude N. 19° 56′. Longitude E. 79° 19′. Elevation 652 feet

Administration: CENTRAL PROVINCES. Rainfall Province No. XII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1863 | 0·19 | ... | 5·50 | 2·10 | 1·30 | 8·73 | P | P | 6·86 | 13·20 | 4·00 | P | P |
| 1864 | P | P | ... | 1·80 | 37·00 | 3·82 | 11·52 | 4·49 | 5·30 | P | 0·60 | P | P |
| 1865 | ... | 12·70 | 4·20 | 0·10 | P | 8·40 | 7·20 | 10·00 | 6·20 | 0·40 | 0·20 | 0·50 | P |
| 1866 | ... | 1·04 | 0·56 | 0·08 | ... | 2·53 | 17·55 | 13·74 | 10·20 | ... | .... | ... | 45·70 |
| 1867 | ... | 0·01 | 5·32 | 1·12 | 0·40 | 15·39 | 10·73 | 15·14 | 10·40 | 3·14 | ... | 0·30 | 61·95 |
| 1868 | ... | ... | ... | ... | 0·10 | 9·57 | 11·37 | 8·53 | 4·42 | 0·60 | ... | ... | 34·59 |
| 1869 | ... | ... | 2·22 | ... | 1·05 | 3·25 | 10·23 | 11·92 | 12·55 | 5·56 | ... | 0·52 | 47·30 |
| 1870 | 0·25 | ... | 0·95 | 0·65 | ... | 10·06 | 29·92 | 6·57 | 6·73 | 2·98 | 1·50 | ... | 59·61 |
| 1871 | 0·64 | 0·69 | 0·48 | 0·10 | 0·56 | 8·13 | 13·10 | 1·96 | 12·85 | ... | ... | 0·02 | 38·53 |
| 1872 | ... | ... | 0·32 | 2·05 | 0·20 | 6·93 | 18·84 | 8·19 | 10·88 | 0·77 | ... | 0·52 | 48·70 |

CHANDA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1873 | ... | ... | 0·03 | ... | 2·38 | 3·09 | 12·64 | 12·49 | 7·68 | ... | ... | 0·02 | 38·33 |
| 1874 | 0·06 | 0·49 | 0·10 | 0·41 | 0·68 | 11·20 | 11·11 | 10·24 | 10·95 | 0·43 | 0·19 | 0·03 | 45·89 |
| 1875 | 0·06 | ... | ... | 0·36 | 0·82 | 9·83 | 16·08 | 11·81 | 7·92 | 3·96 | ... | ... | 50·84 |
| 1876 | ... | ... | 0·03 | ... | 0·62 | 1·09 | 10·40 | 15·77 | 6·82 | 0·12 | ... | ... | 34·85 |
| 1877 | 1·49 | 0·02 | 1·19 | 4·36 | 0·89 | 2·24 | 11·19 | 6·83 | 3·74 | 1·85 | ... | 1·37 | 35·08 |
| 1878 | ... | 0·26 | 0·69 | 0·99 | 1·52 | 2·75 | 19·37 | 23·81 | 8·23 | 1·34 | ... | ... | 58·96 |
| 1879 | ... | 0·61 | ... | ... | 4·12 | 7·20 | 6·73 | 33·54 | 7·02 | 5·82 | 2·11 | 0·02 | 67·17 |
| 1880 | ... | 0·44 | 0·41 | 0·04 | 0·25 | 4·89 | 17·10 | 5·03 | 14·89 | 4·54 | 2·49 | ... | 50·08 |
| 1881 | ... | ... | 3·10 | 0·61 | ... | 12·71 | 14·63 | 11·34 | 10·31 | 0·39 | 4·53 | ... | 57·62 |
| 1882 | 1·05 | ... | ... | 0·51 | 1·25 | 4·21 | 21·27 | 5·81 | 10·09 | 0·54 | 1·22 | ... | 45·95 |
| 1883 | 0·19 | ... | 0·63 | ... | 0·28 | 7·09 | 19·87 | 15·26 | 10·72 | 4·78 | 1·13 | ... | 59·95 |
| Mean | 0·19 | 0·81 | 1·23 | 0·73 | 2·67 | 6·81 | 14·54 | 11·62 | 8·80 | 2·52 | 0·86 | 0·17 | 0·55 |
| 1884 | 0·24 | 0·02 | ... | 0·30 | 0·14 | 6·93 | 23·89 | 17·96 | 15·81 | 1·00 | ... | 3·40 | 69·69 |
| 1885 | ... | 0·05 | 0·82 | 1·19 | 1·70 | 15·47 | 22·39 | 13·13 | 3·63 | 1·67 | 1·00 | 2·49 | 63·54 |
| 1886 | .... | ... | 0·05 | 0·29 | 2·99 | 15·93 | 18·18 | 11·61 | 3·77 | 2·02 | ... | 0·13 | 54·97 |
| Mean | 0·18 | 0·71 | 1·11 | 0·71 | 2·53 | 7·56 | 15·45 | 11·96 | 8·67 | 2·40 | 0·79 | 0·42 | 52·49 |

No. 250. SIRONCHA.

Latitude N. 18° 51′. Longitude E. 80° 0′. Elevation 401 feet.

Administration: CENTRAL PROVINCES. Rainfall Province No. XII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | ... | 2·40 | 0·45 | 0·50 | 8·93 | P | P | P | P | P | P | P |
| 1864 | P | P | 0·10 | 0·15 | 2·81 | 4·20 | P | 11·06 | 9·28 | P | 0·05 | P | P |
| 1865 | ... | 4·54 | 0·10 | 0·07 | 0·06 | 6·20 | 6·80 | 11·70 | 4·60 | ... | 0·12 | ... | 34·19 |
| 1866 | ... | 0·70 | 0·50 | 0·40 | P | P | 9·40 | 15·00 | 13·00 | 1·50 | ... | ... | P |
| 1867 | ... | ... | 1·12 | 1·43 | 0·45 | 3·08 | 7·16 | 14·89 | 18·48 | 2·08 | ... | ... | 48·69 |
| 1868 | 0·30 | ... | ... | ... | 5·97 | 5·97 | 10·22 | 3·10 | 5·17 | ... | ... | ... | 30·73 |
| 1869 | ... | 0·50 | 0·70 | 0·70 | 2·62 | 5·76 | 7·96 | 6·89 | 9·92 | 13·54 | 0·30 | 0·28 | 49·17 |
| 1870 | 0·35 | ... | 1·29 | ... | ... | 12·50 | 13·12 | 3·68 | 16·59 | 2·30 | 2·39 | ... | 46·22 |
| 1871 | 0·10 | 0·30 | ... | ... | 1·20 | 4·14 | 9·46 | 5·80 | 8·52 | 2·40 | ... | ... | 31·92 |
| 1872 | ... | ... | ... | 0·22 | ... | 9·10 | 14·34 | 8·99 | 14·58 | 3·13 | ... | 0·90 | 51·26 |
| 1873 | ... | ... | ... | 0·20 | 1·79 | 0·94 | 11·75 | 11·92 | 6·11 | 1·97 | ... | ... | 34·68 |
| 1874 | ... | 0·09 | ... | 0·15 | 1·17 | 11·41 | 12·86 | 17·57 | 10·43 | 1·68 | 0·31 | ... | 55·67 |
| 1875 | 0·29 | ... | 0·21 | 0·03 | 0·59 | 12·67 | 12·24 | 9·41 | 10·83 | 2·92 | ... | ... | 49·21 |
| 1876 | P | P | P | 0·06 | 0·19 | 4·08 | 12·46 | 6·83 | 4·17 | ... | ... | ... | P |
| 1877 | 0·58 | 1·43 | 1·57 | 2·65 | 8·53 | 3·53 | 12·00 | 5·65 | 5·76 | 4·44 | ... | ... | 46·14 |
| 1878 | 0·03 | ... | 0·03 | 0·15 | 2·34 | 6·05 | 16·39 | 17·68 | 4·29 | 3·63 | 0·79 | ... | 51·38 |
| 1879 | ... | 0·50 | ... | 0·33 | 5·50 | 6·58 | 9·30 | 27·80 | 2·56 | 3 02 | 3·37 | ... | 58·96 |
| 1880 | ... | ... | ... | 0·67 | 0·64 | 3·22 | 21·14 | 3·54 | 10·78 | 0·87 | 2·13 | ... | 42·99 |

SIRONCHA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1881 | ... | ... | 0·94 | 0·22 | 0·31 | 10·38 | 14·15 | 9·82 | 5·16 | 1·11 | 0·42 | ... | 42·51 |
| 1882 | 0·16 | ... | ... | 0·38 | 3·24 | 7·23 | 20·45 | 7·91 | 5·88 | 0·50 | 1·14 | ... | 46·89 |
| 1883 | 0·06 | ... | 0·85 | 0·36 | 0·48 | 10·12 | 13·82 | 16·94 | 13·10 | 0·81 | 0·30 | ... | 56·84 |
| Mean | 0·10 | 0·42 | 0·49 | 0·41 | 1·92 | 6·80 | 12·37 | 10·81 | 8·66 | 2·42 | 0·57 | 0·06 | 45·03 |
| 1884 | 0·99 | ... | ... | 1·25 | 1·10 | 3·12 | 20·19 | 15·78 | 13·56 | 1·55 | 0·02 | 2·97 | 60·53 |
| 1885 | ... | 0·19 | 1·07 | ... | 3·07 | 9·37 | 21·24 | 6·07 | 3·63 | 3·06 | 1·61 | 0·43 | 49·74 |
| 1886 | ... | ... | 0·10 | ... | 0·10 | 13·38 | 18·02 | 14·92 | 4·58 | 5·19 | ... | 0·38 | 56·67 |
| Mean | 0·13 | 0·38 | 0·48 | 0·41 | 1·85 | 7·04 | 13·39 | 11·00 | 8·48 | 2·53 | 0·56 | 0·23 | 46·48 |

No. 251. CHIKALDA.

Latitude N. 21° 24′. Longitude E. 77° 22′. Elevation 3,656 feet.

Administration: BERAR. Rainfall Province No. XIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1866 | ... | ... | ... | ... | ... | 7·45 | 10·57 | 18·37 | 2·48 | 0·47 | ... | ... | 39·34 |
| 1867 | ... | ... | 0·96 | 0·90 | ... | 12·98 | 22·39 | 31·59 | 19·64 | 8·60 | ... | ... | 97·06 |
| 1868 | 3·26 | ... | 0·47 | ... | ... | 8·51 | 15·01 | 14·41 | 8·65 | ... | ... | ... | 50·31 |
| 1869 | ... | ... | ... | ? | ? | ? | ? | 7·33 | 14·19 | 3·90 | ... | 1·22 | ? |
| 1870 | 0·88 | ... | 1·09 | 0·01 | ... | 12·60 | 14·38 | 9·11 | 4·83 | 3·88 | ... | ... | 46·78 |
| 1871 to 1875 | Not on record. | | | | | | | | | | | | |
| 1876 | ? | ... | 0·04 | ... | 0·06 | 4·70 | 16·02 | 17·60 | 21·44 | ... | ... | ... | 59·86 |
| 1877 | 1·56 | 0·34 | 0·52 | 0·14 | 0·31 | 7·23 | 7·33 | 10·15 | 5·47 | 4·40 | 0·54 | 4·23 | 42·22 |
| 1878 | 0·01 | 0·66 | 0·63 | 0·08 | 0·80 | 8·78 | 20·15 | 25·26 | 12·66 | 8·62 | ... | ... | 77·65 |
| 1879 | ... | 0·07 | ... | ... | 2·16 | 18·43 | 8·08 | 22·23 | 18·50 | 7·86 | ... | ... | 77·33 |
| 1880 | ... | ... | ... | ... | 0·37 | 7·37 | 4·59 | 7·41 | 15·66 | 3·49 | 1·92 | ... | 40·81 |
| 1881 | ... | ... | 1·43 | 0·15 | ... | 20·35 | 28·09 | 14·30 | 7·55 | 4·01 | 1·18 | .... | 77·06 |
| 1882 | ... | ... | ... | 0·11 | ... | 20·23 | 22·28 | 11·64 | 13·89 | ... | 1·46 | ... | 69·61 |
| 1883 | 0·10 | ... | ... | ... | 0·65 | 12·42 | 31·67 | 12·83 | 18·35 | 10·98 | ... | ... | 87·00 |
| Mean | 0·48 | 0·08 | 0·40 | 0·12 | 0·36 | 11·75 | 16·71 | 15·56 | 12·56 | 4·32 | 0·39 | 0·42 | 63·15 |
| 1884 | 1·05 | ... | 0·20 | 0·14 | 0·56 | 8·46 | 20·89 | 11·78 | 25·17 | 4·44 | ... | 2·60 | 75·29 |
| 1885 | 0·08 | 0·92 | ... | 0·40 | 1·13 | 12·09 | 16·22 | 19·21 | 3·81 | 3·79 | 3·05 | 11·46 | 72·16 |
| 1886 | 0·11 | ... | 0·03 | ... | 1·15 | 17·24 | 28·64 | 31·75 | 5·06 | 9·42 | 0·16 | 1·47 | 95·03 |
| Mean | 0·47 | 0·12 | 0·35 | 0·13 | 0·48 | 11·92 | 17·75 | 16·56 | 12·33 | 4·62 | 0·52 | 1·31 | 66·56 |

No. 252. ELLICHPUR.

Latitude N. 21° 16′. Longitude E. 77° 30′. Elevation 1,218 feet.

Administration: BERAR. Rainfall Province No. XIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1859 | P. | P | P | 0·10 | ... | 11·44 | 3·72 | 6·19 | 3·65 | ... | ... | ... | P |
| 1860 | ... | ... | ... | ... | ... | 2·03 | 12·14 | 6·88 | 4·90 | ... | ... | 0·12 | 26·07 |
| 1861 | 2·00 | ... | ... | ... | 1·85 | 5·17 | 9·17 | 10·18 | 0·58 | ... | ... | ... | 28·95 |
| 1862 | 1·30 | ... | 0·50 | 1·33 | ... | 2·70 | 3·08 | 1·75 | 7·30 | 1·80 | 0·70 | ... | 20·46 |
| 1863 | ... | ... | 1·90 | ... | ... | 10·45 | 11·25 | 6·54 | 9·60 | 0·05 | ... | ... | 39·79 |
| 1864 | 1·75 | 0·10 | ... | 0·20 | 2·20 | 2·26 | 6·45 | 6·53 | ... | ... | 2·71 | ... | 22·20 |
| 1865 | 0·11 | 0·90 | 3·95 | 0·80 | 0·30 | 4·24 | 9·03 | 9·08 | 1·70 | 0·95 | ... | ... | 31·06 |
| 1866 | ... | ... | ... | ... | ... | 3·20 | 7·66 | 6·21 | 0·50 | ... | ... | ... | 17·57 |
| 1867 | ... | ... | ... | ... | ... | 7·07 | 7·01 | 8·38 | 5·18 | 5·45 | ... | ... | 33·09 |
| 1868 | Not on record. | | | | | | | | | | | | |
| 1869 | ... | ... | ... | 0·20 | 0·35 | 1·83 | 5·22 | 5·72 | 11·18 | 1·72 | ... | 1·09 | 27·22 |
| 1870 | 0·51 | ... | 1·41 | 0·10 | ... | 6·03 | 7·33 | 1·94 | 2·99 | 4·89 | 0·75 | ... | 25·95 |
| 1871 | 1·96 | ... | ... | ... | 0·20 | 5·47 | 4·68 | 1·42 | 4·04 | ... | ... | ... | 17·77 |
| 1872 | ... | ... | ... | 0·82 | ... | 4·12 | 10·23 | 4·89 | 10·38 | 0·66 | ... | 0·03 | 31·13 |
| 1873 | 0·76 | 0·28 | ... | ... | 0·42 | 5·23 | 5·56 | 5·41 | 7·43 | ... | ... | ... | 25·11 |
| 1874* | 0·03 | ... | ... | 0·67 | 0·46 | 6·65 | 13·78 | 5·22 | 4·56 | 0·49 | 0·59 | ... | 32·45 |
| 1875* | ... | 0·43 | 0·05 | ... | 0·08 | 7·79 | 11·41 | 4·00 | 7·41 | 0·11 | ... | 0·01 | 31·29 |
| 1876† | ... | ... | ... | ... | 0·10 | 3·45 | 5·08 | 7·30 | 8·66 | ... | ... | ... | 24·59 |
| 1877* | 1·64 | 0·53 | 0·86 | 0·64 | 0·38 | 7·09 | 4·13 | 5·89 | 1·62 | 6·89 | 0·25 | 3·10 | 33·02 |
| 1878* | 0·02 | ... | ... | 0·08 | 0·31 | 2·46 | 12·32 | 11·98 | 6·29 | 4·47 | 0·06 | ... | 37·99 |
| 1879 | ... | 0·22 | ... | ... | 1·25 | 4·26 | 7·23 | 8·24 | 6·87 | 3·95 | ... | ... | 32·02 |
| 1880 | ... | ... | ... | ... | ... | 4·90 | 1·72 | 2·11 | 7·51 | 1·52 | 1·83 | ... | 19·59 |
| 1881 | ... | ... | 1·31 | ... | 0·57 | 14·46 | 10·35 | 4·52 | 3·63 | 1·05 | 0·61 | ... | 36·50 |
| 1882 | ... | ... | ... | ... | ... | 10·76 | 7·71 | 0·38 | 5·23 | ... | 2·07 | ... | 26·15 |
| 1883 | ... | ... | ... | ... | 0·05 | 10·11 | 14·59 | 7·81 | 7·60 | 8·06 | 0·27 | ... | 48·49 |
| Mean | 0·42 | 0·10 | 0·43 | 0·21 | 0·36 | 5·97 | 7·95 | 5·77 | 5·37 | 1·75 | 0·41 | 0·18 | 28·92 |
| 1884 | 0·45 | ... | 0·15 | 0·16 | ... | 5·44 | 6·65 | 5·70 | 14·86 | 3·72 | ... | 2·16 | 39·29 |
| 1885 | ... | 0·33 | 0·30 | 0·48 | 1·19 | 7·30 | 7·23 | 3·81 | 3·89 | 4·76 | 3·25 | 11·59 | 44·13 |
| 1886 | ... | ... | ... | ... | ... | 16·60 | 7·66 | 3·87 | 0·79 | 11·30 | ... | 0·42 | 40·64 |
| Mean | 0·39 | 0·10 | 0·40 | 0·21 | 0·36 | 6·38 | 7·87 | 5·63 | 5·50 | 2·29 | 0·48 | 0·68 | 30·29 |

* Mean of 2 registers.
† " " 3 "

No. 253 AMRAOTI.

Latitude N. 20° 55′. Longitude E. 77° 43′. Elevation 1,213 feet.

Administration: BERAR. Rainfall Province No. XIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1859 | P | P | P | P | P | 5·84 | P | 11·60 | 4·00 | 0·85 | ... | ... | P |
| 1860 | ... | 0·35 | ... | ... | ... | 6·75 | 8·15 | 7·70 | 10·70 | ... | ... | ... | 33·65 |
| 1861 | 1·70 | ... | 0·49 | ... | 1·40 | 4·50 | 15·64 | 12·85 | 2·45 | ... | ... | ... | 39·03 |

AMRAOTI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | Jdee. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | 0·62 | ... | ... | 0·12 | ... | 4·25 | 3·50 | 4·10 | 7·20 | 3·85 | 1·06 | ... | 24·64 |
| 1863 | 0·05 | 0·05 | 1·40 | ... | ... | 9·40 | 6·25 | 4·40 | 10·35 | ... | ... | ... | 31·90 |
| 1864 | 0·22 | ... | ... | ... | 2·45 | 2·30 | 7·10 | 8·25 | 3·35 | ... | 0·80 | ... | 24·47 |
| 1865 | 0·20 | 1·15 | 1·60 | 0·60 | 0·95 | 14·65 | 7·45 | 12·00 | 1·65 | 0·25 | 0·20 | ... | 40·70 |
| 1866 | ... | ... | ... | ... | 0·40 | 2·05 | 13·75 | 9·65 | 1·45 | 1·60 | ... | ... | 28·90 |
| 1867 | ... | ... | ... | 0·25 | 0·15 | 5·60 | 3·72 | 3·30 | 3·63 | 1·80 | ... | ... | 18·45 |
| 1868 | 4·95 | ... | 0·94 | ... | ... | 9·00 | 8·37 | 13·13 | 1·01 | ... | ... | ... | 37·40 |
| 1869 | ... | ... | ... | ... | 1·00 | 6·84 | 3·78 | 6·08 | 6·44 | 1·23 | ... | 1·93 | 27·30 |
| 1870 | 0·51 | ... | 2·11 | 0·48 | ... | 8·58 | 15·17 | 3·27 | 3·02 | 5·32 | 0·51 | ... | 38·97 |
| 1871 | 0·60 | ... | ... | ... | 1·96 | 6·66 | 7·42 | 1·21 | 6·72 | ... | ... | 0·16 | 23·83 |
| 1872 | ... | ... | ... | 1·65 | ... | 7·15 | 13·65 | 7·49 | 4·70 | 1·20 | ... | ... | 35·84 |
| 1873 | 0·14 | 0·79 | ... | ... | 1·34 | 6·94 | 7·62 | 8·28 | 7·19 | ... | ... | ... | 32·30 |
| 1874 | ... | ... | ... | 0·33 | 0·54 | 7·88 | 9·88 | 2·85 | 5·30 | 0·18 | ... | 0·10 | 27·06 |
| 1875 | ... | 0·82 | ... | ... | 0·03 | 7·50 | 8·92 | 5·14 | 7·87 | 2·64 | ... | ... | 32·92 |
| 1876 | ... | ... | ... | ... | 0·04 | 4·23 | 9·19 | 7·18 | 8·61 | ... | ... | ... | 29·25 |
| 1877 | 2·11 | 1·34 | 0·32 | 1·88 | 0·38 | 7·51 | 4·02 | 4·58 | 0·93 | 2·16 | 0·04 | 3·93 | 29·20 |
| 1878 | ... | 0·35 | 0·08 | 0·17 | 0·89 | 4·11 | 11·87 | 12·98 | 7·85 | 4·37 | ... | ... | 42·67 |
| 1879 | ... | 0·10 | ... | ... | 3·27 | 6·52 | 4·49 | 11·96 | 5·48 | 2·40 | ... | ... | 34·22 |
| 1880 | ... | ... | ... | ... | 0·36 | 3·86 | 1·47 | 1·48 | 6·49 | 0·96 | 1·78 | ... | 16·40 |
| 1881 | ... | ... | 1·30 | 0·10 | 0·61 | 11·46 | 11·84 | 8·05 | 2·78 | 1·82 | 0·97 | ... | 38·93 |
| 1882 | 1·04 | ... | ... | ... | 0·24 | 8·59 | 10·97 | 3·12 | 2·34 | ... | 0·99 | ... | 27·29 |
| 1883 | 0·12 | ... | ... | ... | 0·38 | 9·51 | 16·05 | 12·73 | 9·32 | 6·78 | ... | ... | 54·89 |
| Mean | 0·51 | 0·21 | 0·34 | 0·23 | 0·65 | 6·87 | 8·76 | 7·34 | 5·23 | 1·50 | 0·21 | 0·24 | 32·09 |
| 1884 | ... | 0·26 | 0·67 | ... | 0·16 | 2·30 | 11·47 | 5·92 | 15·14 | 1·93 | ... | 4·07 | 41·91 |
| 1885 | ... | 0·46 | 0·66 | 0·68 | 0·74 | 8·70 | 9·81 | 3·05 | 1·61 | 1·91 | 0·12 | 5·84 | 32·98 |
| 1886 | ... | ... | ... | ... | 0·15 | 10·24 | 6·87 | 4·27 | 1·93 | 4·94 | ... | 0·27 | 28·67 |
| Mean | 0·45 | 0·21 | 0·33 | 0·23 | 0·61 | 6·89 | 8·83 | 7·02 | 5·34 | 1·65 | 0·23 | 0·58 | 32·37 |

No. 254. AKOLA.

Latitude N. 20° 42′. Longitude E. 77° 4′. Elevation 930 feet.

Administration: BERAR. Rainfall Province No. XIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | ? | ? | ? | ? | ? | ? | 13·68 | 12·39 | 2·54 | 0·54 | ... | ... | ? |
| 1862 | 0·44 | ... | ... | ... | ... | 2·15 | 2·19 | 4·50 | 11·75 | 2·44 | ... | ... | 23·47 |
| 1863 | ... | ... | 2·51 | ... | ... | ... | 3·96 | 5·17 | 9·12 | 0·22 | 0·25 | 0·10 | 21·33 |
| 1864 | 0·65 | ... | ... | 0·15 | 0·45 | 4·68 | 8·91 | 5·45 | 1·75 | 0·10 | 1·55 | ... | 23·69 |
| 1865 | 0·06 | 1·55 | 1·82 | ... | 0·50 | 6·44 | 9·37 | 5·80 | ... | 0·41 | ... | ... | 25·95 |
| 1866 | ... | ... | ... | ... | ... | 0·35 | 1·32 | 3·53 | 0·47 | 0·47 | ... | 4·22 | 10·36 |
| 1867 | 0·35 | ... | ... | ... | ... | 6·42 | 5·46 | 8·48 | 5·78 | 3·90 | ... | ... | 30·39 |
| 1868 | 2·15 | ... | 0·88 | ... | 0·35 | 6·27 | 4·69 | 7·99 | 1·95 | ... | ... | ... | 24·28 |
| 1869 | ... | ... | 0·04 | 0·07 | 0·59 | 3·22 | 3·22 | 11·84 | 8·65 | 2·15 | 0·13 | 0·09 | 30·90 |
| 1870 | 0·67 | ... | 1·99 | 0·14 | ... | 6·43 | 17·04 | 7·33 | 1·69 | 4·71 | 0·07 | ... | 40·07 |
| 1871 | 2·87 | ... | ... | ... | ... | 4·93 | 3·01 | 1·35 | 3·05 | 0·26 | 2·00 | ... | 17·47 |

AKOLA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | ... | ... | ... | 1·73 | ... | 8·01 | 7·10 | 3·62 | 12·32 | 7·95 | ... | 0·20 | 40·93 |
| 1873 | 0·10 | 0·36 | 0·11 | ... | 0·43 | 4·80 | 4·52 | 7·14 | 4·17 | ... | 0·94 | ... | 22·57 |
| 1874 | ... | ... | 0·01 | ... | 0·08 | 8·93 | 9·54 | 1·03 | 6·80 | 0·24 | 0·05 | ... | 26·68 |
| 1875 | ... | 0·09 | ... | 0·02 | 0·30 | 7·67 | 7·12 | 5·43 | 12·52 | 0·90 | ... | 0·17 | 34·22 |
| 1876* | ... | ... | ... | ... | ... | 2·47 | 6·54 | 7·69 | 3·11 | 0·03 | ... | ... | 19·84 |
| 1877 | 3·01 | 1·12 | 0·35 | ... | 0·18 | 6·85 | 2·63 | 3·44 | 2·61 | 1·45 | 0·24 | 2·44 | 24·32 |
| 1878 | ... | ... | 0·77 | 0·21 | 0·03 | 5·11 | 6·19 | 13·36 | 9·56 | 6·84 | ... | ... | 43·07 |
| 1879 | ... | 0·31 | ... | ... | 0·84 | 4·99 | 5·29 | 7·99 | 5·23 | 1·25 | ... | ... | 25·90 |
| 1880 | ... | ... | ... | ... | 0·56 | 2·27 | 1·83 | 2·82 | 7·20 | 1·39 | 3·33 | ... | 19·40 |
| 1881 | ... | ... | 1·52 | 0·16 | 0·27 | 6·69 | 7·35 | 10·56 | 3·16 | 1·92 | 1·02 | ... | 32·65 |
| 1882 | 1·36 | ... | ... | ... | ... | 5·22 | 10·79 | 3·07 | 6·48 | 0·39 | 0·82 | ... | 28·13 |
| 1883 | ... | ... | 0·06 | ... | 0·09 | 10·83 | 21·52 | 14·35 | 11·26 | 8·15 | ... | ... | 66·26 |
| Mean | 0·53 | 0·16 | 0·46 | 0·11 | 0·21 | 5·22 | 7·10 | 6·75 | 5·70 | 1·99 | 0·45 | 0·31 | 28·99 |
| 1884 | 0·66 | ... | 0·45 | 0·21 | 0·03 | 4·97 | 14·33 | 6·05 | 12·15 | 3·78 | ... | 6·27 | 48·90 |
| 1885 | ... | ... | 0·59 | 0·22 | 0·30 | 3·97 | 10·63 | 5·45 | 5·12 | 3·48 | 0·30 | 7·18 | 37·24 |
| 1886 | ... | ... | ... | ... | 0·55 | 7·20 | 14·83 | 6·14 | 2·33 | 4·86 | ... | 0·77 | 36·68 |
| Mean | 0·49 | 0·14 | 0·44 | 0·12 | 0·22 | 5·23 | 7·81 | 6·65 | 5·80 | 2·22 | 0·41 | 0·82 | 30·35 |

* Mean of 2 registers.

No. 255. BULDANA.

Latitude N. 20° 34′. Longitude E. 76° 14′. Elevation 2,132 feet.

Administration: BERAR. Rainfall Province No. XIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1859 | ? | ? | ? | 0·67 | 2·02 | 8·40 | 2·70 | 8·83 | 1·37 | 1·50 | ... | 0·60 | ? |
| 1860 | ... | 0·12 | ... | ... | ... | 4·51 | 8·58 | 4·14 | 13·67 | ... | ... | ... | 31·02 |
| 1861 | 1·57 | ... | 0·43 | ... | 1·70 | 6·23 | 6·13 | 12·50 | 1·80 | 1·30 | ... | ... | 31·66 |
| 1862 | ... | ... | ... | ? | ? | ? | ? | ? | ? | 0·12 | ? | ? | ? |
| 1863 | Not on record. | | | | | | | | | | | | |
| 1864 | | | | | | | | | | | | | |
| 1865 | ... | ... | ... | ... | ... | ... | 12·80 | 13·43 | ... | 0·65 | ... | ... | 26·88 |
| 1866 | ... | ... | ... | ... | ... | 1·11 | 7·32 | 8·56 | ... | 0·44 | ... | 0·23 | 17·66 |
| 1867 | ... | ... | 0·32 | 1·38 | ... | 8·78 | 7·94 | 11·14 | 2·68 | 4·32 | 0·15 | ... | 36·71 |
| 1868 | 6·07 | ... | 3·34 | ... | ... | 12·37 | 5·00 | 5·97 | 2·14 | ... | ... | ... | 34·89 |
| 1869 | ... | ... | ... | ... | 1·17 | 3·67 | 6·75 | 8·64 | 5·63 | 7·32 | 0·93 | 0·56 | 34·67 |
| 1870 | 0·45 | ... | 0·75 | ... | ... | 8·60 | 13·81 | 4·04 | 4·71 | 5·59 | 0·73 | ... | 38·68 |
| 1871 | 5·23 | ... | ... | ... | ... | 2·86 | 2·23 | 1·84 | 6·33 | ... | 1·59 | 0·10 | 20·18 |
| 1872 | ... | ... | ... | 2·24 | ... | 6·68 | 15·39 | 7·81 | 10·29 | 1·10 | ... | 1·64 | 45·15 |
| 1873 | 0·12 | 1·20 | ... | ... | 1·10 | 3·38 | 8·17 | 6·55 | 7·27 | ... | 0·50 | ... | 28·29 |
| 1874 | ... | ... | ... | 0·10 | 0·68 | 7·09 | 5·34 | 2·14 | 3·00 | 0·97 | 0·08 | ... | 21·40 |
| 1875 | ... | ... | ... | 0·20 | ... | 5·80 | 6·46 | 4·17 | 12·12 | 1·41 | ... | 0·47 | 30·63 |
| 1876 | ... | ... | ... | ... | ... | 4·26 | 8·22 | 10·29 | 2·26 | 0·15 | ... | ... | 25·18 |
| 1877 | 1·68 | 0·32 | 0·81 | 0·47 | 0·05 | 3·92 | 3·59 | 9·24 | 2·42 | 3·39 | 0·01 | 1·17 | 27·27 |
| 1878 | ... | ... | ... | 0·81 | 0·11 | 5·13 | 6·96 | 14·26 | 8·67 | 6·45 | ... | ... | 42·39 |

BULDANA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1879 | ... | 1·23 | ... | ... | 2·01 | 9·66 | 6·31 | 10·20 | 11·15 | 2·42 | ... | ... | 42·98 |
| 1880 | ... | ... | ... | ... | 0·03 | 4·38 | 5·48 | 2·45 | 12·93 | 1·40 | 2·50 | ... | 29·17 |
| 1881 | ... | 0·04 | 0·52 | 0·27 | 0·81 | 11·50 | 7·46 | 7·99 | 3·30 | 1·73 | 0·68 | ... | 34·30 |
| 1882 | 0·58 | ... | ... | ... | 0·68 | 11·47 | 8·56 | 2·15 | 8·96 | 0·02 | 0·56 | ... | 32·98 |
| 1883 | 0·02 | ... | ... | ... | 0·16 | 12·94 | 11·61 | 9·50 | 16·25 | 9·79 | 0·04 | ... | 60·31 |
| Mean | 0·71 | 0·14 | 0·28 | 0·28 | 0·48 | 6·49 | 7·58 | 7·54 | 6·32 | 2·18 | 0·35 | 0·22 | 32·57 |
| 1884 | 0·50 | 0·02 | 0·06 | 0·17 | ... | 6·14 | 10·98 | 5·45 | 15·22 | 1·67 | ... | 6·94 | 47·15 |
| 1885 | 0·02 | 0·17 | 0·23 | 0·58 | 0·87 | 1·80 | 10·40 | 6·00 | 3·83 | 1·67 | 1·19 | 3·30 | 30·06 |
| 1886 | ... | ... | ... | ... | 1·40 | 10·26 | 10·32 | 9·17 | 1·22 | 5·47 | ... | 1·27 | 39·11 |
| Mean | 0·65 | 0·13 | 0·26 | 0·28 | 0·51 | 6·44 | 7·94 | 7·46 | 6·37 | 2·26 | 0·36 | 0·65 | 33·31 |

No. 256. YEOTMAL.

Latitude N. 20° 24′. Longitude E. 78° 11′. Elevation 1,476 feet.

Administration: BERAR. Rainfall Province No. XIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1865 | ... | ... | 3·32 | ... | ... | 7·05 | 13·70 | 16·00 | 0·40 | 0·20 | 0·30 | ... | 40·97 |
| 1866 | ... | ... | 0·05 | 0·10 | 0·97 | 4·40 | 14·70 | 14·50 | 2·50 | 0·70 | ... | ... | 37·92 |
| 1867 | 0·04 | ... | 0·80 | ... | ... | 13·20 | 16·00 | 14·25 | 15·90 | 9·80 | ... | ... | 69·99 |
| 1868 | 1·60 | ... | 0·95 | ... | ... | 11·10 | 9·45 | 8·10 | 2·50 | ... | ... | ... | 33·70 |
| 1869 | ... | ... | ... | 0·15 | ... | 3·15 | 6·11 | 13·49 | 11·20 | 2·60 | ... | 1·05 | 37·75 |
| 1870 | 2·05 | ... | 1·85 | ... | ... | 15·40 | 35·30 | 4·65 | 3·05 | 2·00 | 0·65 | ... | 64·95 |
| 1871 | 0·70 | ... | ... | ... | 1·20 | 6·05 | 7·10 | 1·70 | 10·05 | ... | 0·20 | ... | 27·00 |
| 1872 | ... | ... | ... | ... | ... | 9·45 | 16·40 | 5·00 | 9·37 | 2·25 | ... | ... | 42·47 |
| 1873 | ... | ... | ... | ... | 3·47 | 5·44 | 5·53 | 4·37 | 8·66 | ... | ... | ... | 27·47 |
| 1874 | ... | 0·75 | 0·22 | ... | 2·81 | 7·10 | 16·17 | 3·00 | 9·00 | 0·75 | 1·15 | 0·05 | 41·00 |
| 1875 | ... | 1·20 | 0·10 | 0·60 | 0·10 | 13·35 | 14·75 | 8·70 | 9·65 | 9·90 | 0·10 | ... | 58·45 |
| 1876 | ... | ... | ... | ... | 0·30 | 3·18 | 10·69 | 11·08 | 2·74 | 0·79 | ... | ... | 28·78 |
| 1877 | ... | ... | ... | 1·65 | 0·15 | 3·69 | 9·97 | 9·45 | 6·10 | 0·75 | ... | 1·75 | 33·51 |
| 1878 | ... | 0·15 | 0·45 | 1·65 | 0·25 | 3·52 | 12·75 | 20·65 | 5·08 | 2·07 | ... | ... | 46·57 |
| 1879 | ... | 0·19 | ... | ... | 6·32 | 9·17 | 5·27 | 15·85 | 6·05 | 1·25 | ... | ... | 44·10 |
| 1880 | ... | ... | ... | ... | 0·28 | 2·95 | 6·95 | 5·50 | 9·27 | 1·65 | 2·20 | ... | 28·80 |
| 1881 | ... | ... | 1·15 | 0·05 | 0·70 | 10·35 | 11·60 | 9·25 | 7·80 | 0·70 | 1·75 | ... | 43·35 |
| 1882 | 0·35 | ... | ... | 0·42 | 1·55 | 8·45 | 18·83 | 2·15 | 6·45 | ... | 2·85 | ... | 41·05 |
| 1883 | 0·20 | ... | ... | ... | 0·30 | 12·05 | 15·95 | 11·75 | 14·30 | 7·05 | 0·15 | ... | 61·75 |
| Mean | 0·26 | 0·12 | 0·47 | 0·24 | 0·97 | 7·85 | 13·01 | 9·44 | 7·37 | 2·23 | 0·49 | 0·15 | 42·60 |
| 1884 | 0·10 | ... | ... | 0·35 | 0·05 | 4·50 | 18·11 | 11·57 | 12·43 | 0·70 | ... | 5·98 | 53·79 |
| 1885 | ... | ... | ... | 1·44 | 0·86 | 5·81 | 10·24 | 4·54 | 3·70 | 2·27 | 0·98 | 3·17 | 33·01 |
| 1886 | ... | ... | ... | 0·10 | 2·33 | 10·15 | 11·99 | 3·29 | 1·57 | 11·34 | ... | 0·36 | 41·13 |
| Mean | 0·23 | 0·10 | 0·40 | 0·30 | 0·98 | 7·71 | 13·07 | 9·04 | 7·17 | 2·58 | 0·47 | 0·56 | 42·61 |

No. 257. BASIM.

Latitude N. 20° 7′. Longitude E. 77° 11′. Elevation 1,842 feet.

Administration: BERAR. Rainfall Province No. XIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1866 | ... | ... | ... | ... | ... | 13·02 | 5·92 | 5·05 | 2·52 | ... | ... | ... | 26·51 |
| 1867 | ... | ... | ... | ... | ... | 7·23 | 9·23 | 5·89 | 4·46 | 4·86 | ... | ... | 31·67 |
| 1868 | ... | ... | ... | ... | ... | 8·27 | 8·42 | 4·22 | 3·33 | ... | ... | ... | 24·24 |
| 1869 | 2·00 | ... | ... | ... | ... | 6·85 | 3·43 | 16·34 | 16·43 | ... | ... | 4·00 | 49·05 |
| 1870 | 2·05 | ... | 1·85 | ... | ... | 15·40 | 35·30 | 4·68 | 3·05 | 2·00 | 0·65 | ... | 64·98 |
| 1871 | 1·03 | 0·10 | ... | ... | 0·34 | 3·78 | 2·72 | 2·59 | 5·90 | 0·26 | 0·85 | ... | 17·57 |
| 1872 | ... | ... | 0·03 | 2·91 | ... | 9·52 | 14·48 | 13·57 | 11·32 | 1·93 | ... | 0·53 | 54·29 |
| 1873 | ... | 0·12 | 0·02 | ... | 2·30 | 5·25 | 7·29 | 9·73 | 14·36 | ... | 0·24 | ... | 39·31 |
| 1874 | ... | ... | 0·19 | 0·02 | 1·79 | 10·26 | 25·40 | 3·34 | 5·78 | 2·80 | 0·10 | ... | 49·68 |
| 1875 | ... | ... | ... | 0·07 | ... | 12·60 | 7·19 | 7·42 | 17·15 | 4·67 | ... | ... | 49·10 |
| 1876* | ... | ... | ... | ... | ... | 5·67 | 9·07 | 9·60 | 2·35 | 0·64 | ... | ... | 27·33 |
| 1877 | 1·49 | 0·71 | 1·01 | 0·86 | 0·27 | 6·72 | 5·40 | 3·97 | 4·15 | 2·70 | 0·16 | 0·44 | 27·88 |
| 1878 | ... | ... | 0·15 | 1·84 | 0·27 | 4·84 | 12·01 | 24·53 | 9·16 | 3·31 | ... | ... | 56·11 |
| 1879 | ... | 0·25 | ... | ... | 5·38 | 10·55 | 5·71 | 10·13 | 7·16 | 3·73 | ... | ... | 42·91 |
| 1880 | ... | ... | 0·07 | 0·06 | 0·10 | 3·71 | 6·49 | 3·36 | 7·38 | 0·75 | 6·67 | ... | 28·59 |
| 1881 | ... | ... | 0·49 | 0·35 | 9·16 | 5·64 | 13·93 | 12·38 | 3·00 | 1·12 | 2·28 | ... | 39·35 |
| 1882 | ... | ... | 0·01 | ... | 0·10 | 8·50 | 11·92 | 3·78 | 6·82 | 0·03 | 0·85 | ... | 32·01 |
| 1883 | ... | ... | 0·05 | 0·10 | 0·15 | 15·00 | 12·38 | 7·90 | 13·17 | 3·60 | 0·95 | ... | 53·30 |
| Mean | 0·37 | 0·07 | 0·22 | 0·35 | 0·60 | 8·49 | 10·91 | 8·25 | 7·64 | 1·80 | 0·71 | 0·28 | 39·69 |
| 1884 | 0·14 | 0·06 | 0·05 | 0·33 | 0·03 | 3·50 | 17·90 | 6·35 | 11·60 | 2·54 | ... | 6·75 | 49·25 |
| 1885 | ... | 0·05 | ... | 0·40 | 0·24 | 3·87 | 10·19 | 5·20 | 1·95 | 1·93 | 0·38 | 2·42 | 26·63 |
| 1886 | 0·08 | ... | ... | ... | 1·14 | 13·43 | 10·29 | 4·43 | 1·56 | 5·47 | ... | 0·55 | 36·95 |
| Mean | 0·32 | 0·06 | 0·19 | 0·33 | 0·58 | 8·27 | 11·17 | 7·83 | 7·27 | 2·02 | 0·63 | 0·70 | 39·37 |

* Mean of 2 registers.

No. 258. WUN.

Latitude N. 20° 3′. Longitude E. 79° 0′. Elevation 755 feet.

Administration: BERAR. Rainfall Province No. XIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1859 | P | P | P | P | P | 2·73 | 17·82 | 8·70 | 0·27 | 0·24 | ... | ... | P |
| 1860 | ... | ... | ... | ... | ... | 1·91 | 14·50 | 12·83 | 5·90 | ... | ... | ... | 35·14 |
| 1861 | ... | ... | 0·40 | P | 0·66 | 7·78 | 8·91 | 15·41 | 2·45 | ... | ... | ... | 35·61? |
| 1862 | ... | ... | 0·29 | 0·18 | ... | 5·44 | 19·36 | 12·83 | 15·43 | 4·14 | 1·20 | ... | 58·87 |
| 1863 | 1·03 | ... | 3·14 | ... | 0·77 | 17·93 | 20·93 | 8·53 | 9·97 | 1·38 | 0·35 | ... | 64·03 |
| 1864 | 1·16 | ... | ... | ... | 2·52 | 6·71 | 7·73 | 3·57 | 4·08 | ... | ... | ... | 25·77 |
| 1865 | ... | 2·71 | 3·00 | ... | ... | 3·15 | 7·66 | 11·26 | 2·50 | ... | ... | 0·75 | 31·03 |
| 1866 | ... | ... | ... | ... | ... | 3·00 | 9·70 | 9·25 | 13·58 | 2·23 | ... | ... | 37·76 |
| 1867 | ... | ... | ... | ... | ... | 11·80 | 8·56 | 12·89 | 7·45 | 3·80 | ... | 0·25 | 44·75 |
| 1868 | 0·40 | ... | 0·50 | ... | 0·15 | 8·49 | 6·66 | 5·31 | 4·46 | ... | ... | ... | 25·97 |

WUN—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1869 | ... | ... | 0·04 | ... | ... | 4·57 | 5·38 | 12·45 | 9·37 | ... | ... | 1·00 | 32·81 |
| 1870 | ... | ... | 1·35 | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1871 to 1875 | Not on record. | | | | | | | | | | | | |
| 1876 | ... | ... | ... | ... | 0·35 | 1·82 | 10·30 | 15·25 | 1·70 | 0·70 | ... | ... | 30·12 |
| 1877 | 2·65 | ... | 1·50 | 1·65 | 0·15 | 3·69 | 9·97 | 9·45 | 6·16 | 0·75 | ... | 1·75 | 37·72 |
| 1878 | ... | ... | 1·10 | ... | 0·75 | 5·05 | 14·40 | 18·69 | 14·05 | 3·85 | ... | ... | 57·89 |
| 1879 | ... | 0·30 | ... | ... | 3·81 | 3·60 | 5·89 | 21·71 | 1·40 | 0·50 | 2·65 | ... | 39·86 |
| 1880 | ... | ... | ... | ... | ... | 1·99 | 8·74 | 2·96 | 4·55 | 2·00 | 6·10 | ... | 26·34 |
| 1881 | ... | ... | 1·35 | ... | ... | 11·05 | 11·42 | 11·33 | 3·61 | 3·23 | 3·48 | ... | 45·47 |
| 1882 | 0·70 | ... | ... | 0·30 | 1·23 | 3·15 | 16·79 | 2·91 | 8·71 | ... | 0·93 | ... | 34·72 |
| 1883 | ... | ... | ... | ... | 0·57 | 10·35 | 10·00 | 10·85 | 9·10 | 7·03 | 0·53 | ... | 48·43 |
| Mean | 0·31 | 0·16 | 0·67 | 0·13 | 0·61 | 6·01 | 11·30 | 10·85 | 6·57 | 1·57 | 0·80 | 0·20 | 39·18 |
| 1884 | 0·30 | ... | ... | ... | ... | 4·05 | 21·07 | 12·51 | 14·52 | 0·67 | ... | 3·10 | 56·22 |
| 1885 | ... | ... | ... | 0·30 | 0·12 | 8·24 | 16·38 | 9·80 | 4·16 | 1·83 | 0·50 | 2·25 | 43·58 |
| 1886 | ... | ... | ... | ... | ... | 18·76 | 13·40 | 7·19 | 0·83 | 6·37 | 0·08 | ... | 46·63 |
| Mean | 0·28 | 0·14 | 0·58 | 0·12 | 0·53 | 6·60 | 12·07 | 10·71 | 6·56 | 1·76 | 0·72 | 0·41 | 40·48 |

No. 259. JACOBABAD.

Latitude N. 28° 24′. Longitude E. 68° 18′. Elevation 186 feet.

Administration: BOMBAY. Rainfall Province No. XV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | ... | ... | 0·58 | ... | ... | ... | 0·82 | 0·53 | 0·05 | ... | ... | ... | 1·98 |
| 1862 | 0·64 | ... | 0·08 | 1·13 | 0·02 | ... | 1·08 | 1·68 | ... | 0·02 | 0·29 | ... | 4·94 |
| 1863 | 0·15 | ... | ... | ... | ... | 0·70 | 2·46 | 0·44 | ... | ... | ... | ... | 3·75 |
| 1864 | ... | ... | ... | 0·60 | 1·18 | ... | 0·07 | 0·52 | ... | ... | ... | ... | 2·37 |
| 1865 | 0·50 | 0·26 | 1·53 | 0·04 | ... | ... | ... | 0·13 | ... | ... | ... | 1·10 | 3·56 |
| 1866 | 0·08 | ... | 0·24 | ... | 0·71 | ... | ... | 2·10 | ... | ... | ... | ... | 3·13 |
| 1867 | ... | ... | ... | ... | ... | ... | ... | 0·91 | ... | ... | ... | 0·06 | 0·97 |
| 1868 | 0·21 | 1·86 | 0·18 | ... | ... | 0·22 | 2·23 | ... | ... | ... | ... | 0·19 | 4·89 |
| 1869 | 0·96 | 0·50 | 2·59 | 0·44 | ... | 0·42 | 3·09 | 2·10 | 1·70 | 0·25 | ... | ... | 12·05 |
| 1870 | ... | ... | 0·72 | ... | ... | 0·31 | ... | 1·75 | 0·85 | ... | ... | 0·16 | 3·79 |
| 1871 | ... | 0·23 | ... | ... | ... | 0·07 | 0·39 | 0·57 | ... | ... | ... | 0·08 | 1·34 |
| 1872 | 0·18 | 0·02 | 0·55 | 0·57 | ... | ... | 0·63 | 4·50 | 1·32 | ... | ... | ... | 7·77 |
| 1873 | 1·07 | ... | ... | ... | 0·58 | ... | 0·03 | 2·47 | ... | ... | ... | 0·20 | 4·35 |
| 1874 | 0·46 | 0·10 | 0·06 | 0·39 | ... | ... | 4·92 | 2·61 | ... | ... | ... | ... | 8·54 |
| 1875 | ... | 0·82 | ... | ... | ... | ... | 1·17 | ... | 0·82 | ... | 0·51 | 0·07 | 3·39 |
| 1876 | 0·20 | 0·02 | 0·26 | ... | ... | 0·09 | 3·91 | 1·71 | ... | ... | 0·39 | 0·03 | 6·61 |
| 1877 | ... | 0·07 | ... | 0·29 | ... | ... | ... | ... | 0·95 | ... | 0·86 | 0·51 | 2·59 |
| 1878 | 0·05 | 0·58 | ... | 0·10 | 0·08 | 0·03 | 2·72 | 7·88 | ... | ... | ... | ... | 11·44 |
| 1879 | ... | ... | 0·68 | ... | ... | 0·18 | ... | 0·45 | ... | ... | ... | ... | 1·31 |
| 1880 | ... | 0·65 | ... | ... | ... | ... | 0·64 | ... | 0·19 | ... | ... | 0·11 | 1·59 |

JACOBABAD—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1881 | ... | 0·17 | 0·12 | 0·14 | ... | ... | 0·06 | 0·23 | ... | ... | ... | ... | 0·72 |
| 1882 | 0·06 | ... | ... | ... | ... | ... | 0·73 | 1·38 | ... | ... | ... | ... | 2·17 |
| 1883 | 0·63 | ... | 0·04 | 0·07 | ... | ... | 5·35 | ... | ... | ... | ... | ... | 6·09 |
| Mean | 0·23 | 0·23 | 0·33 | 0·16 | 0·11 | 0·09 | 1·32 | 1·39 | 0·26 | 0·01 | 0·09 | 0·11 | 4·33 |
| 1884 | 0·02 | 0·56 | 0·16 | 0·04 | ... | ... | 4·27 | 4·04 | 0·79 | ... | ... | ... | 9·88 |
| 1885 | 1·03 | ... | 0·30 | 0·82 | 1·03 | ... | ... | 0·51 | ... | ... | ... | 0·04 | 3·73 |
| 1886 | 0·38 | 0·05 | 0·31 | ... | ... | ... | 1·65 | ... | ... | ... | 0·02 | ... | 2·41 |
| Mean | 0·25 | 0·23 | 0·32 | 0·17 | 0·14 | 0·08 | 1·39 | 1·40 | 0·26 | 0·01 | 0·08 | 0·10 | 4·43 |

No. 260. SHIKARPUR.

Latitude N. 27° 57′. Longitude E. 68° 40′. Elevation 194 feet.

Administration: BOMBAY. Rainfall Province No. XV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ? | ? | ? | ? | ? | 0·36 | 2·67 | ... | ... | 0·02 | ... | 0·20 | ? |
| 1864 | 0·09 | ... | ... | 0·44 | 0·21 | ... | ... | 0·12 | ... | ... | ... | 0·07 | 0·93 |
| 1865 | 0·52 | 0·67 | 1·53 | 0·73 | ... | ? | ... | 0·32 | 0·10 | ... | ... | 0·78 | 4·65 ? |
| 1866 | 0·53 | ... | 0·25 | ... | ... | ... | ... | 4·15 | ... | ... | ... | ... | 4·93 |
| 1867 | ... | ... | ... | ... | ... | ... | ... | 3·64 | 0·01 | ... | ... | 0·20 | 3·85 |
| 1868 | 0·19 | 1·75 | 0·20 | 0·97 | ... | ... | 0·65 | ... | ... | 0·07 | 0·01 | 0·33 | 4·17 |
| 1869 | 1·80 | 0·32 | 2·90 | ... | ... | 0·44 | 0·97 | ... | 2·50 | ... | ... | ... | 8·93 |
| 1870 | ... | ... | 1·12 | ... | ... | 1·30 | ... | 5·57 | ... | ... | ... | 0·42 | 8·41 |
| 1871 | ? | ? | ? | ? | ? | ? | 1·60 | ? | ? | ? | ? | ? | ? |
| 1872 | ... | ... | ... | 0·10 | ... | ... | 0·34 | 0·57 | ... | ... | ... | ... | 1·01 |
| 1873 | 0·51 | ... | ... | ... | ... | ... | ... | 3·56 | ... | ... | ... | ... | 4·07 |
| 1874 | 0·44 | ... | ... | ... | ... | ... | 6·11 | 3·82 | 0·02 | ... | ... | ... | 10·39 |
| 1875 | ... | 0·58 | ... | ... | 0·12 | ... | 2·45 | ... | 0·17 | ... | 0·80 | 0·03 | 4·15 |
| 1876 | 0·31 | 0·23 | 0·15 | ... | 0·10 | 0·17 | 3·10 | 3·28 | ... | ... | 0·16 | ... | 7·50 |
| 1877 | 0·91 | 0·11 | 0·80 | 0·70 | ... | ... | ... | ... | 0·23 | ... | 0·06 | 0·37 | 3·18 |
| 1878 | 0·01 | 0·14 | ... | 0·02 | ... | 0·11 | 3·76 | 6·23 | ... | ... | ... | ... | 10·27 |
| 1879 | ... | ... | 0·40 | ... | ... | ... | ... | 1·25 | ... | ... | ... | ... | 1·61 |
| 1880 | ... | 1·04 | ... | ... | ... | ... | ... | ... | 0·08 | ... | ... | 0·14 | 1·26 |
| 1881 | ... | 0·19 | 0·22 | 0·70 | ... | ... | 0·16 | 1·01 | ... | ... | ... | ... | 2·28 |
| 1882 | 0·22 | ... | ... | ... | ... | ... | 3·70 | 0·54 | 0·45 | ... | ... | ... | 4·91 |
| 1883 | 0·12 | ... | 0·07 | ... | ... | ... | 1·38 | ... | ... | ... | ... | ... | 1·57 |
| Mean | 0·30 | 0·27 | 0·40 | 0·19 | 0·02 | 0·13 | 1·28 | 1·70 | 0·18 | ... | 0·05 | 0·13 | 4·65 |
| 1884 | 0·12 | 0·86 | 0·06 | 0·05 | 0·12 | ... | 3·24 | 3·66 | 2·25 | ... | ... | ... | 10·36 |
| 1885 | 0·36 | ... | 0·73 | 0·65 | 1·02 | ... | ... | 0·12 | ... | ... | ... | ... | 2·88 |
| 1886 | 0·55 | ... | 1·49 | ... | 0·15 | ... | 1·17 | ... | ... | ... | 0·16 | ... | 3·52 |
| Mean | 0·30 | 0·27 | 0·45 | 0·20 | 0·08 | 0·11 | 1·30 | 1·64 | 0·25 | ... | 0·05 | 0·11 | 4·76 |

No. 261. ROHRI.

Latitude N. 27° 41′. Longitude E. 68° 56′. Elevation 190 feet.

Administration: BOMBAY. Rainfall Province No. XV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | 0·95 | ... | 0·24 | 0·65 | 1·79 | ... | 0·15 | 1·25 | ... | ... | ... | ... | 5·03 |
| 1862 | 2·07 | ... | 0·10 | 0·33 | 0·35 | ... | 0·78 | ... | 0·58 | ... | 0·74 | ... | 4·95 |
| 1863 | 0·20 | 0·36 | ... | 0·16 | ... | 0·65 | 1·58 | 0·82 | ... | ... | ... | 0·34 | 4·11 |
| 1864 | 0·03 | 0·06 | 0·02 | 0·35 | 0·15 | ... | 0·23 | 0·24 | ... | ... | ... | ... | 1·08 |
| 1865 | ... | 4·63 | 3·40 | 2·05 | ... | ? | ... | 0·72 | ... | ... | ... | 1·38 | 12·18 ? |
| 1866 | 0·71 | ... | 0·79 | ... | 0·16 | ... | ... | 1·24 | ... | ... | ... | 0·60 | 3·50 |
| 1867 | 0·12 | 1·98 | 0·28 | ... | ... | ... | ... | 0·30 | ... | ... | ... | 0·70 | 3·38 |
| 1868 | 0·12 | 1·98 | ... | ... | ... | ... | 0·30 | ... | ... | ... | ... | 0·60 | 3·00 |
| 1869 | 1·20 | 0·87 | 2·86 | ... | ... | 3·10 | 0·95 | 0·35 | 1·66 | 0·44 | ... | ... | 11·43 |
| 1870 | ... | ... | 2·28 | ... | ... | 1·60 | ... | 3·51 | ... | ... | ... | ... | 7·39 |
| 1871 | ... | 0·25 | ... | ... | ... | 1·40 | ... | ... | ... | ... | ... | ... | 1·65 |
| 1872 | ... | ... | ... | 2·05 | ... | ... | 2·40 | 0·60 | 3·80 | ... | ... | ... | 8·85 |
| 1873 | 0·40 | ... | ... | ... | 2·49 | ... | ... | 4·93 | ... | ... | ... | 0·80 | 8·62 |
| 1874 | 0·73 | 0·15 | ... | 0·15 | ... | ... | 9·16 | 4·28 | 0·10 | ... | ... | ... | 14·57 |
| 1875 | ... | 0·65 | ... | ... | ... | ... | 1·90 | ... | 0·10 | ... | 1·00 | 0·06 | 3·71 |
| 1876 | 0·40 | 0·04 | 0·16 | ... | ... | ... | 2·74 | 1·30 | ... | ... | ... | ... | 4·64 |
| 1877 | 0·86 | 0·11 | 0·33 | 0·19 | ... | ... | ... | ... | 1·10 | ... | 0·03 | 0·30 | 2·92 |
| 1878 | 0·04 | 0·20 | ... | 0·01 | 0·02 | 0·12 | 5·93 | 6·37 | ... | ... | ... | ... | 12·69 |
| 1879 | ... | ... | 0·35 | ... | ... | ... | ... | 0·73 | ... | ... | ... | ... | 1·08 |
| 1880 | ... | 0·45 | ... | ... | ... | ... | 0·13 | ... | ... | ... | 0·01 | 0·12 | 0·71 |
| 1881 | ... | 0·02 | ... | 1·19 | 0·02 | ... | 0·03 | 1·36 | ... | ... | ... | ... | 0·62 |
| 1882 | 0·18 | 0·02 | ... | ... | ... | ... | 2·96 | 0·40 | ... | ... | ... | ... | 3·56 |
| 1883 | 0·14 | ... | 0·05 | ... | ... | 0·61 | 1·82 | ... | 0·01 | ... | ... | ... | 2·63 |
| Mean | 0·35 | 0·51 | 0·47 | 0·31 | 0·22 | 0·34 | 1·35 | 1·23 | 0·32 | 0·02 | 0·08 | 0·21 | 5·41 |
| 1884 | 0·03 | 0·80 | 0·04 | ... | 0·16 | ... | 1·35 | 2·96 | 1·88 | ... | ... | ... | 7·22 |
| 1885 | 0·14 | ... | 0·24 | 0·40 | 0·66 | 0·02 | ... | 1·69 | ... | ... | ... | ... | 3·15 |
| 1886 | 0·38 | 0·02 | 0·52 | ... | ... | 0·05 | 1·30 | ... | ... | ... | 0·37 | ... | 2·64 |
| Mean | 0·33 | 0·48 | 0·45 | 0·29 | 0·22 | 0·30 | 1·30 | 1·27 | 0·36 | 0·02 | 0·08 | 0·19 | 5·29 |

No. 262. SEHWAN.

Latitude N. 26° 26′. Longitude E. 67° 54′. Elevation 119 feet.

Administration: BOMBAY. Rainfall Province No. XV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1865 | 0·05 | 0·15 | 1·68 | 0·40 | ... | ... | 0·24 | 11·87 | ... | ... | ... | 0·89 | 15·28 |
| 1866 | 0·38 | ... | 0·20 | ... | ... | ... | 0·75 | 4·60 | ... | ... | ... | ... | 5·93 |
| 1867 | 0·04 | ... | 0·06 | 0·05 | 0·25 | ... | ... | ... | ... | ... | ... | 0·82 | 1·22 |
| 1868 | 0·13 | 0·43 | 0·27 | 0·20 | ... | ... | 0·44 | 1·20 | ... | 0·05 | ... | 0·85 | 3·57 |
| 1869 | 0·97 | 0·04 | 0·71 | 0·04 | ... | 0·06 | 7·40 | 1·16 | 5·85 | ... | ... | ... | 16·23 |
| 1870 | ... | ... | ... | ... | ... | ... | ... | 5·70 | ... | ... | ... | ... | 5·70 |

SEHWAN—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | 0·40 | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1872 | 0·50 | ... | ... | ... | ... | ... | 2·85 | 2·80 | 1·90 | ... | ... | ... | 8·05 |
| 1873 | 0·50 | ... | ... | ... | 1·21 | ... | 1·00 | 5·05 | ... | ... | ... | ... | 7·76 |
| 1874 | 0·25 | 0·07 | ... | ... | ... | ... | 6·78 | 0·03 | ... | ... | ... | ... | 7·13 |
| 1875 | ... | 0·76 | ... | ... | 0·13 | ... | 1·85 | ... | 1·23 | ... | 1·31 | ... | 5·28 |
| 1876 | 4·30 | ... | 0·56 | ... | ... | ... | 2·55 | 4·54 | 2·94 | ... | 0·32 | ... | 15·21 |
| 1877 | ... | 0·47 | 0·40 | 1·28 | ... | ... | ... | ... | 1·73 | ... | ... | 0·38 | 4·26 |
| 1878 | 0·08 | 1·77 | ... | ... | 0·25 | ... | 3·76 | 9·38 | ... | ... | ... | ... | 15·24 |
| 1879 | ... | ... | 0·05 | ... | 0·03 | 0·07 | 0·20 | 0·45 | ... | ... | ... | ... | 0·80 |
| 1880 | ... | 0·09 | ... | ... | ... | ... | ... | ... | 1·95 | ... | ... | 0·07 | 2·11 |
| 1881 | ... | 0·15 | 0·24 | 2·06 | ... | ... | 0·20 | 3·59 | ... | ... | ... | ... | 6·24 |
| 1882 | 0·18 | ... | ... | 0·10 | 0·12 | ... | 4·26 | 0·54 | ... | ... | ... | ... | 5·20 |
| 1883 | 0·07 | ... | ... | ... | ... | ... | 5·99 | ... | ... | ... | ... | ... | 6·06 |
| Mean | 0·41 | 0·22 | 0·23 | 0·23 | 0·11 | 0·01 | 2·13 | 2·83 | 0·87 | ... | 0·09 | 0·17 | 7·30 |
| 1884 | ... | 1·01 | ... | ... | ... | 3·00 | 2·10 | ... | ... | ... | ... | ... | 6·11 |
| 1885 | 0·33 | ... | 0·18 | 0·15 | 0·15 | ... | ... | 0·46 | ... | ... | ... | ... | 1·27 |
| 1886 | 0·47 | ... | 0·25 | ... | 0·50 | ... | 3·50 | 0·10 | ... | ... | 0·13 | ... | 4·95 |
| Mean | 0·39 | 0·24 | 0·22 | 0·20 | 0·13 | 0·15 | 2·09 | 2·45 | 0·74 | ... | 0·08 | 0·14 | 6·83 |

No. 263. KURRACHEE.

Latitude N. 24° 47′. Longitude E. 67° 4′. Elevation 49 feet.

Administration: BOMBAY. Rainfall Province No. XV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1856 | 1·90 | 0·54 | ... | ... | ... | 0·04 | 0·05 | 0·25 | ... | ... | ... | ... | 1·88 |
| 1857 | 0·27 | 1·49 | ... | ... | ... | ... | 0·29 | 4·27 | 0·36 | ... | ... | ... | 6·58 |
| 1858 | ... | ... | ... | ... | ... | ... | 4·86 | 0·09 | 2·53 | ... | ... | 0·27 | 7·73 |
| 1859 | ... | ... | 0·02 | ... | ... | ... | 4·82 | ... | 1·06 | ... | ... | 0·20 | 6·10 |
| 1860 | 1·07 | ... | ... | ... | 1·20 | ... | ... | 0·49 | ... | ... | ... | ... | 2·76 |
| 1861 | 1·75 | ... | ... | ... | ... | ... | 1·12 | 3·34 | ... | ... | ... | 0·53 | 6·74 |
| 1862 | 0·27 | ... | 0·21 | ... | ... | 0·06 | 2·82 | 0·75 | 0·39 | 0·26 | 0·05 | ... | 4·81 |
| 1863 | 1·00 | 0·11 | ... | ... | ... | 1·27 | 5·28 | 4·15 | ... | 1·56 | ... | 0·30 | 13·67 |
| 1864 | 0·63 | ... | ... | 0·05 | 0·29 | ... | 3·12 | 1·74 | ... | ... | ... | 0·35 | 6·18 |
| 1865 | 3·38 | 0·44 | 0·46 | ... | ... | ... | 0·22 | 1·61 | ... | ... | ... | 0·84 | 6·95 |
| 1866 | 0·75 | 0·18 | 0·21 | ... | ... | ... | ... | 11·61 | 0·76 | ... | ... | ... | 13·51 |
| 1867 | ... | 0·05 | ... | ... | ... | ... | 0·02 | 1·57 | 0·73 | ? | ? | ... | 2·37? |
| 1868 | ? | ? | ... | ... | ... | 0·19 | 1·24 | 0·79 | 0·02 | ... | 0·45 | 0·84 | 3·53? |
| 1869 | 2·44 | 1·12 | 1·69 | ... | ... | 0·19 | 12·97 | 1·33 | 8·26 | ... | ... | ... | 28·00 |
| 1870 | ... | ... | 0·07 | ... | ... | 2·21 | 0·09 | 2·20 | ... | ... | ... | ... | 4·57 |
| 1871 | ... | 0·35 | ... | ... | ... | ... | 0·06 | ... | ... | ... | 0·04 | 0·02 | 0·47 |
| 1872 | 0·09 | ? | ... | ... | ... | 0·06 | 6·32 | 0·02 | 0·99 | ... | ... | ... | 7·48 |
| 1873 | 1·36 | ... | 0·01 | ... | 0·03 | ... | ... | 0·63 | ... | ... | ... | 0·43 | 2·46 |
| 1874 | 0·54 | 0·10 | ... | ... | ... | 0·86 | 5·95 | 0·95 | ... | ... | ... | ... | 8·40 |

KURRACHEE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | 0·05 | 0·41 | ... | ... | ... | ... | 3·74 | 0·10 | 2·70 | ... | 1·38 | 1·13 | 9·51 |
| 1876 | ... | 0·06 | 0·07 | ... | ... | ... | 4·00 | 1·24 | ... | ... | 0·03 | ... | 5·40 |
| 1877 | ... | 1·58 | 0·08 | 0·22 | ... | ... | ... | ... | 0·16 | ... | 0·02 | 0·03 | 2·09 |
| 1878 | 0·29 | 0·31 | ... | ... | ... | 0·07 | 11·25 | 11·26 | 0·65 | ... | ... | ... | 23·83 |
| 1879 | ... | ... | 1·00 | ... | ... | 0·04 | ... | 0·87 | 0·01 | ... | ... | ... | 1·92 |
| 1880 | ... | 0·21 | ... | ... | ... | ... | ... | ... | 3·88 | ... | ... | ... | 4·09 |
| 1881 | ... | 0·08 | 0·35 | 4·75 | ... | 0·04 | 1·71 | 2·04 | 1·05 | ... | ... | ? | 10·02? |
| 1882 | 1·04 | ... | ... | ... | ... | ... | 8·38 | 0·92 | ... | ... | ... | 0·20 | 10·54 |
| 1883 | 0·33 | ... | 0·12 | ... | ... | 0·37 | 4·75 | ... | 0·54 | ... | ... | ... | 6·11 |
| Mean | 0·60 | 0·26 | 0·15 | 0·18 | 0·05 | 0·19 | 2·97 | 1·87 | 0·86 | 0·07 | 0·07 | 0·20 | 7·47 |
| 1884 | 0·03 | 0·45 | 0·18 | ... | ... | 0·49 | 3·50 | 0·33 | 2·29 | ... | ... | ... | 7·27 |
| 1885 | 1·84 | ... | 0·34 | 0·63 | ... | ... | 0·01 | 2·00 | ... | ... | ... | ... | 4·82 |
| 1886 | 0·03 | 0·02 | 0·21 | ... | ... | ... | 8·79 | 0·06 | 0·08 | 0·05 | 0·25 | ... | 9·49 |
| Mean | 0·60 | 0·25 | 0·16 | 0·18 | 0·05 | 0·19 | 3·08 | 1·76 | 0·85 | 0·07 | 0·07 | 0·18 | 7·4 |

No. 264. TATTA.

Latitude N. 24° 44′. Longitude E. 67° 58′. Elevation 39 feet.

Administration: BOMBAY. Rainfall Province No. XV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1869 | 1·38 | 0·45 | 1·33 | ... | ... | 4·15 | 12·29 | 0·72 | 6·35 | ... | ... | ... | 26·67 |
| 1870 | ... | ... | ... | ... | ... | 0·43 | 0·47 | 2·18 | ... | ... | ... | ... | 3·08 |
| 1871 | ... | ... | ... | ... | ... | ... | 0·08 | 0·16 | ... | ... | 0·55 | 0·30 | 1·09 |
| 1872 | ... | ... | ... | ... | ... | 1·06 | 5·53 | ... | 0·82 | ... | ... | ... | 7·41 |
| 1873 | 0·15 | ... | ... | ... | ... | ... | 0·02 | 0·73 | ... | ... | ... | 0·48 | 1·38 |
| 1874 | 0·90 | 0·34 | ... | 1·24 | 0·44 | 5·91 | 4·34 | ... | ... | ... | ... | ... | 13·17 |
| 1875 | 0·09 | 0·07 | ... | ... | ... | ... | 3·81 | ... | ... | ... | 0·98 | ... | 4·95 |
| 1876 | 0·22 | 0·11 | ... | ... | ... | ... | 5·31 | 1·24 | 0·05 | ... | 0·19 | ... | 7·12 |
| 1877 | ... | 0·80 | 0·15 | 2·38 | ... | ... | ... | ... | 4·96 | 0·07 | ... | 0·04 | 8·40 |
| 1878 | 0·02 | ... | ... | ... | ... | 1·05 | 7·88 | 7·41 | 0·29 | ... | 0·03 | ... | 16·68 |
| 1879 | ... | ... | 0·37 | ... | ... | 1·14 | 0·15 | 0·86 | ... | ... | ... | ... | 2·52 |
| 1880 | ... | 0·12 | ... | ... | ... | 0·08 | ... | ... | 3·36 | ... | ... | ... | 3·56 |
| 1881 | ... | 0·03 | 0·31 | 4·82 | ... | ... | 1·45 | 7·14 | 1·30 | ... | ... | ... | 15·05 |
| 1882 | 0·09 | ... | ... | ... | ... | ... | 8·80 | 1·79 | ... | ... | ... | 0·05 | 10·73 |
| 1883 | 0·16 | ... | 0·03 | ... | ... | 0·74 | 4·63 | 0·02 | 2·31 | ... | ... | ... | 7·89 |
| Mean | 0·20 | 0·13 | 0·15 | 0·56 | 0·03 | 0·97 | 3·65 | 1·48 | 1·30 | ... | 0·12 | 0·06 | 8·65 |
| 1884 | ... | 0·08 | 0·03 | ... | ... | 0·22 | 2·55 | 0·97 | 1·28 | ... | ... | ... | 5·13 |
| 1885 | 0·80 | ... | ... | 0·24 | ... | 0·36 | 0·01 | 2·49 | ... | ... | ... | ... | 3·90 |
| 1886 | 0·03 | ... | 0·06 | ... | ... | ... | 6·94 | 0·21 | ... | ... | 0·14 | ... | 7·38 |
| Mean | 0·21 | 0·11 | 0·13 | 0·48 | 0·03 | 0·84 | 3·57 | 1·44 | 1·15 | ... | 0·11 | 0·05 | 8·11 |

No. 265. HYDERABAD.

Latitude N. 25° 25'. Longitude E. 68° 27'. Elevation 66 feet.

Administration: BOMBAY. Rainfall Province No. XV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | P | P | P | P | P | 3·34 | 1·27 | 1·93 | ... | P | P | P | P |
| 1864 | P | P | P | P | P | ... | 0·54 | 3·38 | ... | P | P | P | P |
| 1865 | P | P | P | P | P | ... | ... | 11·80 | P | P | P | P | P |
| 1866 | 0·25 | ... | ... | 0·06 | ... | 0·05 | 0·27 | 11·55 | 0·10 | ... | ... | ... | 12·28 |
| 1867 | ... | ... | ... | 0·07 | ... | ... | ... | 4·12 | 0·67 | 0·03 | ... | P | 4·89 P |
| 1868 | ... | 0·35 | 0·14 | ... | ... | ... | 0·02 | 0·80 | 0·56 | ... | ... | ... | 1·87 |
| 1869 | 1·42 | 0·35 | 0·79 | ... | ... | 2·43 | 9·66 | 1·38 | 4·13 | 0·07 | ... | ... | 20·23 |
| 1870 | ... | ... | ... | ... | ... | 1·95 | ... | 0·62 | ... | ... | ... | ... | 2·57 |
| 1871 | ... | 0·56 | ... | ... | 0·10 | ... | 1·80 | 0·49 | ... | ... | 0·58 | ... | 3·53 |
| 1872 | ... | ... | ... | ... | ... | ... | 6·05 | 1·56 | 1·20 | ... | ... | ... | 8·81 |
| 1873 | 0·33 | ... | ... | ... | ... | 0·17 | 0·34 | 2·13 | ... | ... | ... | 0·18 | 3·15 |
| 1874 | 0·29 | 0·39 | ... | ... | ... | ... | 3·98 | 5·16 | ... | ... | ... | ... | 9·82 |
| 1875 | ... | ... | ... | ... | 0·20 | ... | 10·98 | ... | 0·16 | ... | 0·44 | ... | 11·78 |
| 1876 | 0·17 | ... | 0·06 | ... | ... | ... | 5·28 | 3·17 | ... | ... | ... | ... | 8·68 |
| 1877 | ... | 0·43 | 0·03 | 0·55 | ... | ... | ... | ... | 2·39 | ... | ... | ... | 3·40 |
| 1878 | ... | 0·12 | 0·11 | ... | 0·20 | 0·15 | 4·31 | 11·56 | ... | ... | ... | ... | 16·45 |
| 1879 | ... | ... | 0·20 | 0·32 | ... | 0·70 | 1·52 | 0·55 | ... | ... | ... | ... | 3·29 |
| 1880 | ... | 0·42 | ... | ... | ... | ... | 0·50 | ... | 1·55 | ... | ... | ... | 2·47 |
| 1881 | ... | ... | 0·10 | 3·40 | ... | ... | 0·60 | 6·61 | 3·72 | ... | ... | ... | 14·43 |
| 1882 | 0·34 | ... | ... | ... | 0·23 | ... | 12·15 | 1·84 | ... | ... | ... | ... | 14·56 |
| 1883 | 0·92 | ... | 0·20 | ... | ... | 0·38 | 2·43 | ... | 0·58 | ... | ... | ... | 4·51 |
| Mean | 0·21 | 0·15 | 0·09 | 0·24 | 0·04 | 0·44 | 2·94 | 3·27 | 0·75 | 0·01 | 0·06 | 0·01 | 8·21 |
| 1884 | ... | 0·30 | ... | 0·05 | ... | 0·02 | 1·20 | 3·67 | 3·33 | ... | ... | ... | 8·57 |
| 1885 | 0·27 | ... | ... | 0·04 | 0·53 | 0·25 | ... | 3·29 | ... | ... | ... | ... | 4·38 |
| 1886 | ... | ... | 0·78 | ... | ... | ... | 5·27 | 1·04 | ... | ... | 0·65 | ... | 7·74 |
| Mean | 0·19 | 0·14 | 0·11 | 0·21 | 0·06 | 0·39 | 2·84 | 3·19 | 0·80 | ... | 0·08 | 0·01 | 8·02 |

No. 266. UMARKOT.

Latitude N. 25° 22'. Longitude E. 69° 47'. Elevation 100 feet.

Administration: BOMBAY. Rainfall Province No. XV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | P | P | P | P | P | 9·12 | 1·15 | 1·62 | 1·18 | 4·37 | ... | ... | P |
| 1864 | 0·16 | 0·26 | ... | ... | ... | P | 2·83 | 1·78 | ... | ... | ... | ... | P |
| 1865 | 0·48 | 0·15 | 1·72 | ... | ... | ... | ... | 20·08 | 0·45 | ... | ... | ... | 22·88 |
| 1866 | 0·80 | ... | ... | ... | ... | 1·12 | 0·18 | 11·69 | ... | ... | ... | ... | 13·79 |
| 1867 | ... | ... | ... | ... | 0·82 | ... | ... | 8·87 | 0·68 | ... | ... | ... | 10·37 |
| 1868 | ... | ... | ... | ... | ... | 0·10 | 1·15 | 4·69 | 1·04 | ... | ... | 0·10 | 7·08 |

UMARKOT—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1869 | ? | ... | ... | ... | ... | 2·35 | 16·35 | 1·58 | ? | ? | ? | ? | ? |
| 1870 | ? | ? | ? | ? | ? | ? | ? | 0·53 | ? | ? | ? | ? | ? |
| 1871 | ? | ? | ? | ? | ? | ... | 1·60 | 0·30 | ? | ? | ? | ? | ? |
| 1872 and 1873 | Not on record. | | | | | | | | | | | | |
| 1874 | ... | ... | ... | ... | ... | ... | 6·77 | 5·69 | 0·10 | ... | ... | ... | 12·56 |
| 1875 | ... | ... | ... | ... | 0·10 | ... | 7·46 | 0·07 | 2·37 | ... | 0·04 | ... | 10·04 |
| 1876 | 0·02 | ... | ... | ... | ... | ... | 8·46 | 3·80 | 0·33 | ... | ... | ... | 12·61 |
| 1877 | ... | 0·16 | 0·10 | 0·20 | 0·40 | ... | ... | ... | 3·85 | 0·17 | ... | ... | 4·88 |
| 1878 | ... | 0·08 | ... | ... | ... | 0·43 | 2·05 | 9·89 | 0·74 | ... | ... | ... | 13·19 |
| 1879 | ... | ... | 0·08 | ... | 0·06 | 1·67 | 0·30 | 1·37 | 1·63 | ... | ... | 0·04 | 5·15 |
| 1880 | ... | 0·29 | ... | ... | ... | 0·93 | 0·76 | 0·43 | 2·36 | ... | ... | ... | 4·71 |
| 1881 | ... | 0·03 | 0·37 | 2·45 | ... | ... | 2·82 | 5·77 | 1·94 | ... | ... | ... | 13·38 |
| 1882 | 0·06 | ... | ... | ... | ... | 0·14 | 12·21 | 5·06 | ... | ... | ... | ... | 17·47 |
| 1883 | 0·64 | ... | ... | ... | ... | 0·15 | 2·29 | 0·12 | 2·20 | 0·11 | ... | ... | 5·51 |
| Mean | 0·14 | 0·06 | 0·14 | 0·17 | 0·09 | 0·94 | 3·68 | 4·39 | 1·18 | 0·29 | ... | 0·01 | 11·09 |
| 1884 | ... | 0·16 | ... | ... | 0·18 | 1·95 | 5·89 | 4·19 | 2·51 | ... | ... | ... | 14·88 |
| 1885 | 0·33 | ... | ... | ... | ... | 1·20 | ... | 5·51 | ... | ... | ... | ... | 7·04 |
| 1886 | ... | ... | 0·34 | ... | ... | ... | 7·55 | 1·54 | 0·20 | ... | ... | ... | 9·63 |
| Mean | 0·14 | 0·06 | 0·14 | 0·14 | 0·08 | 0·96 | 3·80 | 4·30 | 1·14 | 0·24 | ... | 0·01 | 11·01 |

No. 267. NAGAR.

Latitude N. 24° 21′. Longitude E. 70° 48′. Elevation 100 feet.

Administration: BOMBAY. Rainfall Province No. XV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | 1·68 | ... | ... | ... | ... | 10·24 | 2·65 | 4·63 | 0·85 | 4·34 | ... | ... | 24·39 |
| 1864 | ... | 0·07 | ... | ... | ... | ? | ? | 1·28 | ... | ... | ... | ... | ? |
| 1865 | ... | 0·05 | 1·12 | ... | ... | 0·04 | 2·59 | 8·17 | 0·39 | 0·05 | ... | ... | 12·41 |
| 1866 | ... | ... | ... | ... | ... | 3·11 | 1·87 | 14·76 | 0·33 | ... | ... | ... | 20·07 |
| 1867 | ... | ... | ... | ... | ... | 0·18 | 0·56 | 3·50 | 3·75 | 0·06 | ? | ? | 8·05 ? |
| 1868 | ... | ... | ... | ... | ... | 2·57 | 1·80 | 7·18 | 0·72 | ... | ... | 0·04 | 12·31 |
| 1869 | 0·79 | 0·33 | 0·17 | ... | 0·77 | 1·39 | 13·45 | 2·25 | 9·27 | ... | ... | ... | 28·42 |
| 1870 | ... | ... | ... | ... | ... | 6·12 | 5·10 | 1·03 | ... | ... | ? | ? | 12·25 ? |
| 1871 | ... | ... | ... | ... | 4·17 | 0·33 | 1·88 | 26·78 | ... | ... | 0·08 | 0·20 | 33·44 |
| 1872 | ... | ... | ... | ... | ... | 2·17 | 8·71 | 0·97 | 1·53 | ... | ... | ... | 13·38 |
| 1873 | ... | ... | ... | ... | ... | ... | 2·56 | 8·10 | ... | ... | ... | ... | 10·66 |
| 1874 | ... | ... | ... | ... | ... | 3·21 | 7·02 | 7·73 | 0·80 | ... | ... | ... | 18·76 |
| 1875 | ... | 0·40 | ... | ... | 0·15 | ... | 6·80 | 0·45 | 5·08 | ... | ... | ... | 12·88 |
| 1876 | ... | ... | ... | ... | ... | 0·22 | 7·86 | 8·66 | 0·41 | ... | ... | ... | 17·15 |
| 1877 | ... | 0·56 | ... | ... | 1·10 | 0·99 | 1·87 | ... | 3·45 | 1·05 | ... | ... | 9·02 |

NAGAR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1878 | ... | ... | ... | ... | 0·12 | 0·04 | 6·67 | 7·33 | 2·16 | ... | ... | ... | 16·32 |
| 1879 | ... | ... | ... | ... | 0·05 | 3·85 | 2·15 | 7·96 | 0·70 | 0·30 | ... | ... | 15·01 |
| 1880 | ... | ... | ... | ... | ... | 0·40 | 1·95 | 2·97 | 2·80 | 2·62 | ... | 0·32 | 11·06 |
| 1881 | ... | ... | ... | 0·70 | ... | 0·18 | 11·74 | 6·99 | 3·21 | ... | ... | ... | 22·82 |
| 1882 | 0·28 | ... | ... | ... | ... | 2·06 | 11·21 | 5·20 | 0·70 | ... | ... | ... | 19·45 |
| 1883 | ... | ... | ... | ... | ... | 0·73 | 8·40 | ... | 4·18 | ... | ... | ... | 13·31 |
| Mean | 0·13 | 0·07 | 0·06 | 0·03 | 0·30 | 1·89 | 5·34 | 6·00 | 1·92 | 0·40 | ... | 0·03 | 16·17 |
| 1884 | ... | ... | ... | ... | ... | 1·65 | 13·41 | 6·72 | 3·63 | ... | ... | ... | 24·81 |
| 1885 | ... | ... | ... | ... | 0·36 | 0·25 | 1·03 | 7·40 | ... | ... | ... | ... | 9·04 |
| 1886 | 0·07 | ... | ... | ... | ... | 6·67 | 10·73 | 2·87 | ... | ... | ... | ... | 20·34 |
| Mean | 0·12 | 0·06 | 0·05 | 0·03 | 0·28 | 2·02 | 5·74 | 5·93 | 1·83 | 0·35 | ... | 0·03 | 16·44 |

No. 268. BHUJ.

Latitude N. 23° 15′. Longitude E. 69° 42′. Elevation 395 feet.

Administration: BOMBAY. Rainfall Province No. XV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | ? | ? | ? | ? | ? | ? | 4·19 | 3·04 | 1·10 | ... | ... | ... | ? |
| 1862 | ? | ? | ? | ? | ? | 1·05 | 7·76 | 6·77 | 5·24 | 14·09 | ? | ? | ? |
| 1863 | ? | ? | ? | ? | ? | 16·49 | 3·37 | 0·98 | 2·40 | 1·10 | ? | ? | ? |
| 1864 | ? | ? | ? | ? | ? | 0·01 | 5·69 | 1·58 | ... | ... | ? | ? | ? |
| 1865 | ? | ? | ? | ? | ? | 0·05 | 2·83 | 7·73 | 0·99 | 0·05 | ? | ? | ? |
| 1866 | ? | ? | ? | ? | ? | 0·52 | 4·55 | 14·39 | 1·26 | ... | ... | ... | ? |
| 1867 | ? | ? | ? | ? | ... | ... | 0·60 | 2·42 | 4·94 | ... | 0·08 | ? | ? |
| 1868 | ? | ? | ? | ? | ? | 2·72 | 0·97 | 4·46 | 0·16 | ... | ... | 0·06 | ? |
| 1869 | 0·05 | 0·04 | 0·66 | 0·21 | ... | 1·11 | 9·35 | 5·53 | 6·01 | 0·29 | ... | ... | 23·25 |
| 1870 | ... | ... | ... | ... | ... | 1·68 | 5·91 | 0·21 | 1·68 | ... | ? | ? | 9·48? |
| 1871 | ... | ... | ... | ... | 2·31 | 0·27 | 0·22 | 8·99 | ... | 0·61 | ... | 0·34 | 12·74 |
| 1872 | ... | ... | ... | ... | ... | 4·79 | 8·68 | 2·15 | 1·44 | ... | ... | ... | 17·06 |
| 1873 | ... | 1·06 | ... | ... | ... | ... | 2·52 | 2·58 | 0·01 | ... | ... | 0·15 | 6·32 |
| 1874 | 0·34 | ... | ... | ... | ... | 4·91 | 4·51 | 2·09 | 0·18 | ... | ... | ... | 12·03 |
| 1875 | ... | ? | ... | ... | ... | 0·10 | 3·85 | 0·52 | 1·24 | ... | ... | ... | 5·71 ? |
| 1876 | ... | ... | ... | ... | ... | 0·40 | 3·13 | 0·83 | 1·41 | ... | 0·08 | ... | 5·85 |
| 1877 | ... | 0·43 | ... | ... | ... | 0·80 | 0·03 | ... | 11·39 | 1·28 | ... | ... | 13·93 |
| 1878 | ... | ... | ... | ... | ... | 10·85 | 12·73 | 7·72 | 4·27 | ... | ... | ... | 35·57 |
| 1879 | ... | 0·19 | ... | ... | ... | 0·88 | 0·15 | 7·19 | 1·95 | ... | ... | ... | 10·36 |
| 1880 | ... | ... | ... | ... | ... | 0·53 | 0·83 | 0·17 | 4·44 | 3·04 | ... | ... | 9·01 |
| 1881 | ... | 0·03 | ... | 2·70 | ... | ... | 10·19 | 2·75 | 2·24 | ... | ... | ... | 17·91 |
| 1882 | 0·09 | ... | ... | ... | ... | 2·81 | 10·95 | 0·80 | 0·28 | ... | ... | ... | 14·93 |
| 1883 | 0·12 | ... | 1·29 | ... | 0·42 | 1·58 | 9·42 | 0·11 | 2·88 | 0·23 | ... | ... | 16·05 |
| Mean | 0·04 | 0·13 | 0·13 | 0·19 | 0·17 | 2·34 | 4·89 | 3·61 | 2·41 | 0·90 | 0·01 | 0·03 | 4·85 |

BHUJ—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | ... | 0·02 | 0·02 | ... | ... | 1·11 | 12·30 | 2·48 | 6·43 | ... | ... | 0·17 | 22·53 |
| 1885 | ... | ... | ... | ... | 0·29 | 1·85 | 3·36 | 8·08 | ... | 0·52 | ... | 0·04 | 14·14 |
| 1886 | 0·08 | ... | ... | ... | ... | 1·57 | 8·91 | 0·78 | 0·08 | ... | 0·01 | ... | 11·43 |
| Mean | 0·04 | 0·10 | 0·11 | 0·16 | 0·16 | 2·24 | 5·27 | 3·63 | 2·39 | 0·82 | 0·01 | 0·04 | 14·97 |

No. 269. DEESA.

Latitude N. 24° 16′. Longitude E. 72° 14′. Elevation 465 feet.

Administration: BOMBAY. Rainfall Province No. XIV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1856 | ? | ? | ? | ? | ? | 0·28 | 14·42 | 7·60 | 1·10 | 1·89 | 0·39 | ... | ? |
| 1857 | 1·57 | 0·62 | .... | ... | ... | 7·90 | ... | 10·69 | 7·52 | ... | ... | ... | 28·30 |
| 1858 | 0·19 | ... | ... | ... | ... | 2·07 | 15·29 | 1·18 | 5·81 | ... | .... | ... | 24·54 |
| 1859 | ... | ... | ... | ... | ... | 1·09 | 9·82 | 7·39 | 1·68 | ... | ... | ... | 19·98 |
| 1860 | 0·12 | 0·03 | ... | ... | ... | 2·63 | ? | ? | ? | ? | ? | 0·17 | ? |
| 1861 | 0·03 | ... | ... | ... | ... | 1·02 | 2·82 | 13·61 | 0·47 | 0·29 | ... | ... | 18·24 |
| 1862 | 0·08 | ... | ... | ... | ... | 3·46 | 11·38 | 5·18 | 4·77 | 10·72 | 0·23 | ... | 35·82 |
| 1863 | 0·41 | ... | ... | ... | ... | 12·04 | 7·12 | 11·50 | 0·43 | 1·06 | ... | ... | 32·56 |
| 1864 | 0·04 | 1·33 | ... | ... | 0·06 | 3·01 | 15·99 | 5·49 | 0·02 | 0·03 | ... | ... | 25·97 |
| 1865 | 0·31 | ... | 1·29 | ... | ... | ... | 8·80 | 10·22 | 0·17 | 0·22 | ... | ... | 21·01 |
| 1866 | ... | ... | ... | ... | ... | 0·02 | 1·93 | 12·53 | 0·17 | ... | ... | ... | 14·65 |
| 1867 | ... | ... | ... | ... | ... | ... | 2·94 | 9·92 | 5·73 | ? | ? | ? | ? |
| 1868 | ? | ... | ... | ... | ... | 3·35 | 1·58 | 10·98 | 0·05 | 0·98 | ... | ... | 16·94 ? |
| 1869 | 0·10 | 0·18 | 0·81 | ... | 0·18 | 0·24 | 14·74 | 5·91 | 8·01 | 0·17 | 0·36 | ... | 30·70 |
| 1870 | ... | ... | 0·08 | ... | ... | 3·95 | 16·19 | 2·61 | 1·78 | 0·47 | ... | 0·08 | 25·16 |
| 1871 | ... | ... | ... | ... | 1·27 | 2·01 | 5·19 | 12·84 | 0·36 | ... | 0·89 | 0·17 | 22·73 |
| 1872 | ... | ... | ... | 0·07 | ... | 1·97 | 10·38 | 9·69 | 0·36 | ... | ... | ... | 22·47 |
| 1873 | ... | 0·33 | ... | ... | ... | 0·25 | 3·62 | 11·56 | ... | ... | ... | ... | 15·76 |
| 1874 | 0·03 | 0·01 | ... | ... | 0·07 | 3·08 | 6·75 | 13·76 | 1·12 | ... | ... | 0·02 | 24·84 |
| 1875 | ... | 1·29 | ... | 0·97 | 0·66 | 0·12 | 16·75 | 3·68 | 11·06 | 0·33 | ... | 0·01 | 34·87 |
| 1876 | ... | ... | 0·02 | 0·31 | ... | 0·73 | 8·59 | 3·03 | 6·61 | ... | ... | ... | 19·29 |
| 1877 | ... | 0·65 | 0·05 | ... | 0·45 | 2·87 | 2·82 | ... | 2·89 | 1·87 | ... | 0·09 | 11·69 |
| 1878 | ... | ... | ... | 0·04 | 1·36 | 0·21 | 4·63 | 21·79 | 3·26 | ... | ... | ... | 31·29 |
| 1879 | ... | 0·86 | ... | ... | ... | 5·42 | 9·42 | 15·12 | 1·59 | 0·01 | ... | ... | 32·42 |
| 1880 | ... | 0·02 | ... | ... | ... | 0·29 | 9·65 | 10·23 | 9·20 | 4·41 | ... | 0·10 | 33·90 |
| 1881 | ... | ... | ... | 0·06 | 0·38 | 2·29 | 28·50 | 7·28 | 2·85 | ... | ... | 0·56 | 41·92 |
| 1882 | 0·19 | ... | ... | ... | ... | 1·21 | 12·63 | 4·54 | 1·86 | ... | ... | ... | 20·43 |
| 1883 | 0·14 | ... | 0·52 | ... | 0·56 | 1·87 | 8·40 | 0·27 | 3·54 | 1·11 | ... | ... | 16·41 |
| Mean | 0·12 | 0·20 | 0·10 | 0·05 | 0·18 | 2·26 | 9·27 | 8·47 | 3·05 | 0·91 | 0·07 | 0·04 | 24·72 |
| 1884 | ... | 0·02 | ... | ... | 0·01 | 2·32 | 24·75 | 7·59 | 16·68 | ... | ... | 0·06 | 51·43 |
| 1885 | 0·05 | ... | ... | 0·03 | ... | 1·28 | 7·78 | 8·82 | 0·28 | 0·01 | ... | ... | 18·25 |
| 1886 | ... | ... | ... | ... | 0·13 | 1·16 | 11·28 | 8·93 | 0·59 | 0·08 | ... | ... | 22·17 |
| Mean | 0·11 | 0·18 | 0·09 | 0·05 | 0·17 | 2·20 | 9·81 | 8·46 | 3·33 | 0·82 | 0·06 | 0·04 | 25·32 |

No. 270. PALANPUR.

Latitude N. 24° 10′. Longitude E. 72° 29′. Elevation 700 feet.

Administration: BOMBAY. Rainfall Province No. XIV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1866 | P | P | P | P | P | ... | 5·72 | 23·53 | 1·07 | P | P | P | P |
| 1867 | P | P | P | P | ... | ... | 4·21 | 19·89 | 12·88 | ... | ... | P | P |
| 1868 | P | P | P | P | P | ... | 2·56 | 17·52 | 0·02 | ... | ... | ... | P |
| 1869 and 1870 | Not on record. | | | | | | | | | | | | |
| 1871 | | P | P | P | 3·91 | 2·75 | 6·10 | 16·49 | ... | ... | ... | ... | P |
| 1872 | ... | .... | ... | ... | ... | 6·98 | 10·48 | 7·58 | 2·97 | ... | ... | ... | 28·01 |
| 1873 | ... | 0·47 | ... | ... | ... | 0·12 | 9·36 | 11·05 | 0·08 | ... | ... | ... | 21·08 |
| 1874 | ... | ... | ... | ... | ... | 6·72 | 10·02 | 18·04 | 0·66 | ... | ... | 0·01 | 35·45 |
| 1875 | ... | 0·80 | 0·03 | ... | 1·93 | 0·15 | 13·48 | 5·23 | 13·87 | ... | ... | ... | 35·49 |
| 1876 | ... | ... | ... | 0·17 | ... | 0·11 | 12·51 | 3·54 | 9·55 | ... | ... | ... | 25·88 |
| 1877 | ... | 0·74 | ... | ... | 0·60 | 0·68 | 5·52 | ... | 4·10 | 3·56 | ... | 0·33 | 15·53 |
| 1878 | ... | ... | ... | ... | 0·46 | 2·30 | 13·06 | 26·22 | 1·42 | .... | ... | ... | 43·46 |
| 1879 | ... | 0·99 | ... | ... | 0·21 | 8·24 | 13·76 | 16·35 | 5·88 | ... | ... | ... | 45·43 |
| 1880 | ... | 0·01 | ... | ... | ... | 0·67 | 6·13 | 10·17 | 10·23 | 8·81 | ... | 0·45 | 36·47 |
| 1881 | ... | ... | ... | ... | 1·54 | 1·64 | 26·72 | 10·24 | 4·40 | .... | ... | 0·41 | 44·95 |
| 1882 | 0·58 | ... | ... | ... | ... | 2·12 | 15·61 | 4·97 | 2·97 | .... | ... | ... | 26·25 |
| 1883 | 0·16 | ... | 0·73 | ... | 2·44 | 4·10 | 8·92 | 0·34 | 3·52 | 0·24 | ... | ... | 20·45 |
| Mean | 0·06 | 0·25 | 0·06 | 0·01 | 0·79 | 2·29 | 10·26 | 11·95 | 4·60 | 0·84 | ... | 0·09 | 31·20 |
| 1884 | ... | 0·02 | ... | ... | 0·13 | 2·13 | 22·49 | 9·91 | 29·20 | ... | ... | 0·01 | 63·89 |
| 1885 | 0·02 | ... | ... | 0·01 | 0·48 | 2·82 | 6·85 | 13·14 | 0·20 | 0·06 | ... | ... | 23·58 |
| 1886 | ... | ... | 0·02 | ... | 0·06 | 1·90 | 16·68 | 12·57 | 1·15 | 1·05 | ... | ... | 33·43 |
| Mean | 0·05 | 0·20 | 0·05 | 0·01 | 0·69 | 2·29 | 11·06 | 11·94 | 5·48 | 0·76 | ... | 0·07 | 32·60 |

No. 271. EDAR.

Latitude N. 23° 56′. Longitude E. 73° 4′. Elevation 900 feet.

Administration: BOMBAY. Rainfall Province No. XIV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | | P | P | P | P | 0·75 | 8·75 | 17·70 | ... | ... | ... | ... | P |
| 1869 | P | P | P | P | P | 7·13 | 8·40 | 9·81 | 19·29 | 0·77 | 0·06 | ... | P |
| 1870 | ... | ... | ... | ... | 0·15 | 7·35 | 26·23 | 6·33 | 0·32 | 0·01 | ... | ... | 40·39 |
| 1871 | ... | ... | ... | ... | 1·35 | 1·92 | 8·11 | 13·33 | 3·69 | ... | 0·56 | ... | 28·96 |
| 1872 | ... | ... | ... | ... | ... | 3·44 | 15·35 | 7·06 | 4·64 | ... | ... | ... | 30·49 |
| 1873 | ... | ... | ... | ... | ... | 1·20 | 14·82 | 26·35 | 1·73 | ... | ... | ... | 44·10 |
| 1874 | ... | ... | ... | ... | ... | 5·55 | 14·81 | 13·10 | 1·90 | ... | ... | ... | 35·36 |
| 1875 | ... | 1·05 | ... | ... | 1·28 | 2·02 | 20·79 | 4·74 | 27·81 | 0·20 | ... | ... | 58·09 |
| 1876 | ... | ... | ... | ... | ... | 0·20 | 14·90 | 9·07 | 10·03 | ... | ... | ... | 34·20 |

EDAR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | ... | 1·10 | ... | ... | 1·37 | 2·21 | 1·12 | 0·57 | 4·45 | 3·88 | 1·10 | 0·30 | 16·10 |
| 1878 | ... | ... | ... | 0·33 | 0·84 | 6·48 | 28·22 | 28·77 | 6·67 | ... | ... | ... | 71·31 |
| 1879 | ... | 0·50 | ... | ... | ... | 4·88 | 7·23 | 12·34 | 3·72 | ... | ... | ... | 28·67 |
| 1880 | ... | ... | ... | ... | ... | 1·80 | 11·85 | 12·64 | 10·02 | 0·38 | ... | 0·12 | 36·81 |
| 1881 | ... | ... | ... | ... | 2·25 | 2·44 | 35·77 | 12·93 | 3·88 | ... | ... | 0·21 | 57·48 |
| 1882 | 0·17 | ... | ... | ... | ... | 2·74 | 31·83 | 5·65 | 11·85 | ... | ... | ... | 52·24 |
| 1883 | ... | ... | ... | ... | 3·45 | 2·20 | 12·88 | 1·05 | 2·86 | 0·12 | ... | ... | 22·56 |
| Mean | 0·01 | 0·20 | ... | 0·02 | 0·76 | 3·27 | 16·32 | 11·34 | 7·05 | 0·34 | 0·11 | 0·04 | 39·46 |
| 1884 | ... | ... | ... | ... | ... | 3·15 | 24·41 | 12·71 | 20·51 | 0·13 | ... | 0·18 | 61·09 |
| 1885 | 0·40 | ... | ... | ... | ... | 2·71 | 9·43 | 12·87 | 0·30 | ... | ... | ... | 25·71 |
| 1886 | ... | ... | ... | ... | 1·55 | 9·37 | 30·58 | 9·69 | 1·80 | 2·05 | ... | ... | 55·04 |
| Mean | 0·03 | 0·17 | ... | 0·02 | 0·72 | 3·55 | 17·13 | 11·41 | 7·13 | 0·40 | 0·09 | 0·04 | 40·69 |

No. 272. AHMEDABAD.

Latitude N. 23° 1′. Longitude E. 72° 37′. Elevation 200 feet.

Administration: BOMBAY. Rainfall Province No. XIV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1843 | ? | ? | ? | ? | 2·03 | 4·16 | 7·62 | 2·19 | ? | ? | ? | ? | ? |
| 1844 to 1861 | Not on record. | | | | | | | | | | | | |
| 1862 | ? | ? | ? | ? | ? | 3·89 | 12·36 | 8·41 | 3·52 | ? | ? | ? | ? |
| 1863 | ? | ? | ? | ? | 0·15 | 12·95 | 8·17 | 4·86 | 1·91 | ? | ? | ? | ? |
| 1864 | ? | ? | ? | ? | ? | 1·32 | 12·82 | 5·00 | 0·29 | ? | ? | ? | ? |
| 1865 | ? | ? | ? | ? | ? | 0·72 | 4·55 | 15·79 | 5·86 | ? | ? | ? | ? |
| 1866 | ? | ? | ? | ? | ? | 2·14 | 5·58 | 18·06 | 1·36 | ? | ? | ? | ? |
| 1867 | ? | ? | ? | ? | ... | 1·12 | 4·84 | 8·04 | 3·67 | 0·66 | ... | ? | ? |
| 1868 | ? | ? | ? | ? | ? | 4·92 | 6·36 | 34·72 | 0·29 | 0·14 | ... | ... | ? |
| 1869 | ... | ... | 0·29 | ... | 0·77 | 1·16 | 12·23 | 4·17 | 12·63 | 3·05 | ... | ... | 34·30 |
| 1870 | ... | ... | ... | ... | 2·33 | 3·62 | 15·07 | 3·74 | 3·00 | 0·40 | ... | ... | 28·16 |
| 1871 | ... | ... | ... | 0·19 | 1·40 | 2·66 | 8·22 | 16·86 | 1·92 | ... | 0·57 | 0·19 | 32·01 |
| 1872 | ... | ... | ... | ... | ... | 6·08 | 16·85 | 7·07 | 3·24 | ... | ... | ... | 33·24 |
| 1873 | ... | 0·02 | ... | ... | ... | 0·34 | 7·98 | 14·46 | 0·70 | ... | ... | ... | 23·50 |
| 1874 | ... | ... | ... | ... | 0·87 | 3·43 | 20·88 | 10·96 | 4·16 | ... | ... | ... | 40·30 |
| 1875 | ... | 0·94 | 0·04 | 0·29 | 1·10 | 1·03 | 7·83 | 1·95 | 10·15 | 0·28 | ... | ... | 23·61 |
| 1876 | ... | ... | ... | ... | ... | 0·25 | 8·84 | 7·99 | 5·05 | ... | ... | ... | 22·13 |
| 1877 | ... | 0·30 | ... | 0·08 | 0·87 | 2·33 | 5·69 | 0·60 | 5·64 | 5·64 | ... | 0·50 | 21·65 |
| 1878 | ... | ... | ... | ... | 1·01 | 2·29 | 20·39 | 18·64 | 5·56 | ... | ... | ... | 47·89 |
| 1879 | ... | 0·02 | ... | ... | 0·07 | 9·01 | 6·14 | 10·47 | 6·15 | ... | ... | ... | 31·86 |
| 1880 | ... | ... | ... | ... | ... | 2·36 | 14·95 | 2·44 | 8·12 | 0·82 | ... | ... | 28·69 |
| 1881 | ... | ... | ... | ... | ... | 1·09 | 18·39 | 7·17 | 7·09 | ... | ... | 0·10 | 33·84 |

AHMEDABAD—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | ... | ... | ... | ... | ... | 7·54 | 18·30 | 1·96 | 3·29 | ... | ... | ... | 31·09 |
| 1883 | 0·13 | ... | ... | ... | 2·23 | 2·43 | 10·25 | 1·54 | 3·60 | ... | ... | ... | 20·18 |
| Mean | 0·01 | 0·09 | 0·02 | 0·04 | 0·71 | 3·34 | 11·06 | 9·00 | 4·42 | 0·65 | 0·03 | 0·05 | 29·42 |
| 1884 | ... | ... | ... | ... | ... | 1·82 | 17·57 | 5·90 | 10·19 | ... | ... | ... | 35·48 |
| 1885 | ... | ... | ... | 0·01 | 0·50 | 2·79 | 9·84 | 8·68 | 0·48 | 0·58 | ... | ... | 22·88 |
| 1886 | ... | ... | ... | ... | 1·16 | 8·16 | 18·69 | 4·59 | 0·44 | 0·41 | ... | ... | 33·45 |
| Mean | 0·01 | 0·07 | 0·02 | 0·03 | 0·69 | 3·45 | 11·55 | 8·70 | 4·33 | 0·60 | 0·03 | 0·04 | 29·52 |

No. 273. KAIRA.

Latitude N. 22° 44′. Longitude E. 72° 45′. Elevation 90 feet.

Administration: BOMBAY. Rainfall Province No. XIV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | P | P | P | P | P | 2·36 | 16·09 | 9·41 | 0·66 | P | P | P | P |
| 1862 | P | P | P | P | P | 6·67 | 14·45 | 5·83 | 6·24 | P | P | P | P |
| 1863 | P | P | P | P | P | 12·95 | 10·62 | 2·89 | 1·33 | P | P | P | P |
| 1864 | P | P | P | P | P | 0·43 | 10·38 | 4·00 | 0·88 | P | P | P | P |
| 1865 | P | P | P | P | P | 0·98 | 5·95 | 13·60 | 3·78 | P | P | P | P |
| 1866 | P | P | P | P | P | 0·75 | 7·77 | 18·32 | 0·36 | P | P | P | P |
| 1867 | P | P | P | P | ... | 2·77 | 3·96 | 9·24 | 5·29 | 0·83 | ... | P | P |
| 1868 | P | P | P | P | P | 6·48 | 6·90 | 25·20 | 0·12 | ... | ... | ... | P |
| 1869 | ... | ... | ... | ... | 0·05 | 1·42 | 14·15 | 4·25 | 13·28 | 0·23 | ... | ... | 33·38 |
| 1870 | ... | ... | ... | ... | 2·96 | 6·13 | 22·64 | 3·93 | 2·03 | ... | ... | ... | 37·69 |
| 1871 | ... | ... | ... | ... | 0·16 | 3·29 | 7·15 | 16·84 | 3·45 | ... | 2·62 | 0·05 | 33·56 |
| 1872 | ... | ... | ... | ... | 0·30 | 11·75 | 13·26 | 4·81 | 2·83 | ... | ... | ... | 32·95 |
| 1873 | ... | ... | ... | ... | 0·19 | 1·27 | 5·53 | 12·91 | 2·96 | ... | ... | ... | 22·86 |
| 1874 | ... | ... | ... | ... | ... | 3·04 | 12·41 | 4·35 | 3·42 | ... | ... | ... | 23·22 |
| 1875 | ... | 2·02 | ... | ... | ... | 1·19 | 17·31 | 4·71 | 10·52 | 0·01 | ... | ... | 35·76 |
| 1876 | .... | ... | 0·06 | ... | 0·39 | 0·39 | 14·60 | 12·18 | 2·76 | ... | ... | ... | 30·38 |
| 1877 | ... | 1·30 | ... | 0·63 | 0·91 | 4·42 | 7·01 | 0·01 | 5·52 | 5·44 | ... | 1·10 | 26·34 |
| 1878 | ... | ... | ... | 0·09 | 0·88 | 2·95 | 20·01 | 12·68 | 5·57 | ... | ... | ... | 42·18 |
| 1879 | ... | 0·12 | ... | ... | 0·04 | 6·18 | 5·01 | 10·06 | 5·07 | ... | ... | ... | 26·48 |
| 1880 | ... | ... | ... | ... | ... | 4·41 | 29·85 | 9·93 | 14·48 | 0·43 | ... | ... | 59·10 |
| 1881 | ... | ... | ... | 0·20 | ... | 2·03 | 27·15 | 13·57 | 4·48 | 0·30 | ... | ... | 47·73 |
| 1882 | ... | 0·12 | ... | ... | ... | 6·45 | 24·36 | 5·45 | 4·58 | ... | ... | ... | 40·96 |
| 1883 | 0·39 | ... | ... | ... | 0·10 | 4·61 | 14·37 | 0·63 | 8·76 | 0·55 | ... | ... | 29·41 |
| Mean | 0·03 | 0·24 | ... | 0·06 | 0·37 | 4·04 | 13·52 | 8·90 | 4·62 | 0·46 | 0·15 | 0·07 | 32·46 |
| 1884 | 0·02 | ... | ... | ... | ... | 3·30 | 25·02 | 9·12 | 19·53 | 0·20 | ... | 0·07 | 57·26 |
| 1885 | 0·04 | ... | ... | ... | 0·29 | 2·81 | 9·24 | 11·32 | 1·89 | 1·69 | 0·08 | ... | 27·36 |
| 1886 | ... | ... | 0·07 | ... | 0·10 | 6·92 | 22·46 | 7·44 | 2·39 | 0·33 | ... | ... | 39·71 |
| Mean | 0·03 | 0·20 | 0·01 | 0·05 | 0·34 | 4·08 | 14·14 | 8·99 | 5·01 | 0·50 | 0·14 | 0·06 | 33·55 |

No. 274. GODHRA.

Latitude N. 22° 47′. Longitude E. 73° 40′. Elevation 465 feet.

Administration : BOMBAY. Rainfall Province No. XIV.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1866 | ? | ? | ? | ? | ? | 3·59 | 5·42 | 16·64 | 2·06 | ? | ? | ? | ? |
| 1867 | ? | ? | ? | ? | ... | 3·13 | 7·07 | 19·63 | 4·88 | 0·44 | ... | ? | ? |
| 1868 | ? | ? | ? | ? | ? | 11·02 | 10·13 | 20·52 | 0·04 | ... | ... | ... | ? |
| 1869 | ... | 0·18 | ... | ... | ... | 3·87 | 15·89 | 11·08 | 22·26 | 5·61 | ... | 0·15 | 59·04 |
| 1870 | ... | ... | ... | ... | 0·12 | 14·78 | 21·73 | 6·67 | 3·21 | ... | ... | ? | 46·51 ? |
| 1871 | ... | 0·23 | ... | ... | ... | 2·12 | 15·31 | 20·92 | 5·32 | ... | 0·65 | 0·12 | 44·67 |
| 1872 | ... | ... | ... | 0·09 | ... | 8·32 | 24·53 | 7·90 | 7·40 | ... | ... | ... | 48·24 |
| 1873 | 0·02 | 0·20 | ... | ... | ... | ... | 14·26 | 13·59 | 4·51 | ... | ... | ... | 32·58 |
| 1874 | ... | ... | ... | ... | ... | 2·85 | 29·03 | 4·81 | 9·05 | ... | ... | ... | 45·74 |
| 1875 | ... | 0·77 | 0·17 | 0·02 | 1·29 | 5·32 | 21·98 | 3·40 | 13·04 | 0·35 | ... | ... | 46·34 |
| 1876 | ... | ... | ... | ... | ... | 0·26 | 18·34 | 14·45 | 16·75 | ... | ... | ... | 49·80 |
| 1877 | ... | 0·60 | ... | ... | 0·29 | 3·92 | 4·71 | 0·21 | 5·75 | 1·91 | ... | 0·76 | 18·15 |
| 1878 | 0·09 | ... | ... | ... | 0·33 | 1·58 | 29·37 | 22·18 | 10·21 | 0·38 | ... | ... | 64·14 |
| 1879 | ... | 0·50 | ... | ... | 0·85 | 9·70 | 8·42 | 17·40 | 5·54 | 2·21 | ... | ... | 44·62 |
| 1880 | ... | ... | ... | ... | 0·10 | 1·62 | 7·77 | 5·65 | 13·40 | 0·59 | ... | ... | 29·13 |
| 1881 | ... | ... | ... | ... | ... | 3·90 | 22·08 | 11·27 | 5·47 | 0·07 | ... | ... | 42·79 |
| 1882 | ... | ... | ... | ... | ... | 14·45 | 26·52 | 3·10 | 9·17 | 0·27 | 0·07 | ... | 53·58 |
| 1883 | 0·81 | ... | ... | ... | 4·39 | 3·30 | 25·71 | 4·25 | 13·84 | 0·72 | ... | ... | 53·02 |
| **Mean** | **0·06** | **0·17** | **0·01** | **0·01** | **0·46** | **5·21** | **17·13** | **11·32** | **8·44** | **0·74** | **0·04** | **0·07** | **43·66** |
| 1884 | 0·08 | ... | ... | ... | ... | 3·20 | 16·96 | 7·90 | 24·48 | 0·49 | ... | 0·14 | 53·25 |
| 1885 | ... | ... | ... | ... | 0·20 | 1·50 | 7·24 | 15·00 | 1·51 | 3·38 | 0·02 | ... | 28·85 |
| 1886 | ... | ... | ... | ... | 0·18 | 8·01 | 13·32 | 10·50 | 1·27 | 5·25 | ... | ... | 38·53 |
| **Mean** | **0·06** | **0·14** | **0·01** | **0·01** | **0·41** | **5·07** | **16·47** | **11·29** | **8·53** | **1·08** | **0·04** | **0·07** | **43·18** |

No. 275. BARIYA..

Latitude N. 22° 44′. Longitude E. 73° 57′. Elevation 1,100 feet.

Administration : BOMBAY. Rainfall Province No. XIV.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1869 | ... | 0·05 | 0·08 | ... | ... | 1·16 | 8·42 | 4·94 | 24·14 | 3·50 | ... | 0·40 | 42·69 |
| 1870 | ... | ... | ... | ... | ... | 11·43 | 24·03 | 6·55 | 3·15 | 0·70 | ... | ... | 45·86 |
| 1871 | ... | ... | ... | ... | 0·07 | 4·97 | 10·96 | 19·11 | 2·73 | ... | 1·10 | 0·20 | 39·14 |
| 1872 | ... | ... | ... | ... | ... | 8·67 | 18·25 | 15·17 | 4·62 | ... | ... | 0·16 | 46·87 |
| 1873 | ... | 2·93 | ... | ... | ... | 6·06 | 14·24 | 18·91 | 10·33 | ... | ... | ... | 52·47 |
| 1874 | ... | ... | ... | ... | ... | 2·78 | 25·20 | 8·06 | 9·93 | ... | ... | ... | 45·97 |
| 1875 | ... | 0·70 | ... | ... | ... | 2·80 | 15·10 | 3·35 | 19·35 | ... | ... | ... | 41·30 |
| 1876 | ... | ... | ... | ... | ... | 0·40 | 12·78 | 15·55 | 12·35 | ... | ... | ... | 41·08 |
| 1877 | 0·55 | 1·35 | ... | ... | ... | 3·54 | 3·78 | 0·74 | 4·20 | 0·98 | ... | 0·64 | 15·78 |
| 1878 | ... | ... | ... | ... | 0·10 | 3·51 | 30·63 | 26·08 | 6·60 | 0·28 | ... | ... | 67·20 |
| 1879 | ... | 0·20 | ... | ... | 0·76 | 16·03 | 6·21 | 15·91 | 7·19 | 2·56 | ... | ... | 48·86 |
| 1880 | ... | ... | ... | ... | 0·28 | 1·49 | 8·97 | 5·18 | 17·71 | 0·38 | ... | ... | 34·01 |

BARIYA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1881 | ... | ... | ... | ... | ... | 3·67 | 31·13 | 16·03 | 7·76 | ... | ... | 0·70 | 59·29 |
| 1882 | ... | ... | ... | ... | ... | 11·15 | 28·90 | 4·75 | 10·65 | ... | 0·13 | ... | 55·58 |
| 1883 | 0·54 | ... | ... | ... | 1·57 | 4·61 | 30·65 | 3·92 | 18·13 | 2·15 | ... | ... | 61·57 |
| Mean | 0·07 | 0·35 | 0·01 | ... | 0·19 | 5·48 | 17·95 | 10·95 | 10·59 | 0·70 | 0·08 | 0·14 | 46·51 |
| 1884 | 0·30 | ... | ... | ... | ... | 4·50 | 27·32 | 7·22 | 23·28 | 0·70 | ... | ... | 63·32 |
| 1885 | ... | ... | ... | ... | ... | 3·96 | 10·82 | 17·84 | ... | 0·78 | ... | ... | 33·40 |
| 1886 | ... | ... | ... | ... | 0·20 | 6·70 | 19·26 | 10·45 | 1·19 | 5·36 | ... | 0·12 | 43·28 |
| Mean | 0·08 | 0·29 | ... | ... | 0·17 | 5·41 | 18·15 | 11·10 | 10·18 | 0·97 | 0·07 | 0·12 | 46·54 |

No. 276. WADHWÁN.

Latitude N. 22° 42′. Longitude E. 71° 45′. Elevation 231 feet.

Administration: BOMBAY. Rainfall Province No. XIV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | ... | 0·27 | 0·80 | ... | ... | 5·03 | 3·41 | 3·30 | 2·77 | ... | ... | ... | 15·58 |
| 1876 | ... | ... | ... | ... | ... | 2·15 | 5·49 | 3·19 | 2·78 | ... | ... | ... | 13·61 |
| 1877 | 0·46 | 0·13 | ... | ... | 0·17 | 0·50 | 0·87 | 0·40 | 1·07 | 2·90 | 0·60 | 0·05 | 7·15 |
| 1878 | ... | ... | ... | 0·05 | ... | 0·62 | 8·24 | 8·31 | 10·70 | ... | ... | ... | 27·92 |
| 1879 | ... | 0·07 | ... | ... | ... | 6·77 | 3·18 | 3·54 | 2·01 | ... | ... | ... | 15·57 |
| 1880 | ... | ... | ... | ... | 0·07 | 3·02 | 16·39 | 1·09 | 7·73 | 0·33 | ... | ... | 28·63 |
| 1881 | ... | ... | ... | 0·13 | ... | 1·01 | 10·25 | 3·21 | 2·96 | ... | ... | 0·05 | 17·61 |
| 1882 | 0·04 | ... | ... | ... | ... | 5·46 | 9·21 | 4·42 | 2·33 | 0·12 | ... | ... | 21·58 |
| 1883 | 0·08 | ... | ... | ... | ... | 2·36 | 9·44 | 0·36 | 4·19 | 0·62 | ... | ... | 17·05 |
| Mean | 0·04 | 0·04 | 0·06 | 0·01 | 0·05 | 2·77 | 6·95 | 2·80 | 4·33 | 0·31 | 0·26 | 0·01 | 17·64 |
| 1884 | ... | ... | ... | ... | 0·01 | 2·94 | 8·60 | 1·65 | 6·15 | ... | ... | ... | 19·35 |
| 1885 | ... | ... | ... | ... | 0·68 | 1·08 | 10·84 | 14·64 | 0·08 | 0·59 | ... | ... | 27·91 |
| 1886 | ... | ... | ... | ... | 0·89 | 1·67 | 9·16 | 5·02 | 2·28 | 1·73 | ... | ... | 20·75 |
| Mean | 0·04 | 0·03 | 0·05 | 0·01 | 0·14 | 2·61 | 7·44 | 3·61 | 4·05 | 0·39 | 0·21 | 0·01 | 18·59 |

No. 277. RAJKOT.

Latitude N. 22° 17′. Longitude E. 70° 52′. Elevation 429 feet.

Administration: BOMBAY. Rainfall Province No. XIV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | P | P | P | P | P | 5·02 | 5·90 | 15·79 | 1·35 | 0·72 | ... | ... | P |
| 1862 | ... | ... | ... | ... | 0·04 | 16·82 | 10·83 | 3·00 | 5·87 | 4·92 | 1·00 | ... | 42·48 |

RAJKOT—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | ... | ... | ... | 0·15 | 25·35 | 7·32 | 4·42 | 5·70 | 1·17 | ... | ... | 44·11 |
| 1864 | P | P | P | P | 0·80 | 0·88 | 17·65 | 0·95 | 0·11 | 0·70 | ... | ... | 21·09 P |
| 1865 | 0·40 | ... | 0·21 | ... | ... | 1·00 | 4·16 | 19·05 | 2·06 | 0·85 | P | P | 27·73 P |
| 1866 | P | P | P | P | P | 2·16 | 7·81 | 17·30 | 2·96 | 3·30 | P | P | P |
| 1867 | P | P | 0·03 | P | ... | 0·36 | 6·87 | 6·82 | 6·17 | 0·61 | ... | P | 20·86 P |
| 1868 | P | P | P | P | 0·06 | 3·19 | 10·61 | 13·39 | 0·64 | 0·34 | ... | ... | 28·23 P |
| 1869 | ... | ... | ... | ... | 0·08 | 5·10 | 13·92 | 1·15 | 10·98 | ... | ... | ... | 31·23 |
| 1870 | ... | ... | P | P | P | 4·76 | 10·78 | 1·95 | 1·21 | 0·83 | ... | ... | P |
| 1871 | ... | P | ... | ... | 4·29 | 3·60 | 0·57 | 9·81 | 1·32 | 0·09 | 4·08 | 0·20 | 23·96 P |
| 1872 | ... | ... | ... | ... | ... | 10·60 | 5·45 | 3·97 | 2·79 | ... | ... | ... | 22·81 |
| 1873 | 0·05 | 0·70 | ... | ... | 0·54 | 0·72 | 9·81 | 10·49 | 3·46 | ... | ... | ... | 25·77 |
| 1874 | ... | ... | ... | ... | 0·15 | 11·20 | 10·01 | 0·78 | 1·31 | ... | ... | ... | 23·45 |
| 1875 | ... | 0·62 | 0·02 | ... | 0·15 | 2·52 | 3·27 | 2·67 | 5·86 | ... | ... | 0·62 | 15·73 |
| 1876 | ... | ... | ... | ... | ... | 1·41 | 9·04 | 9·66 | 0·62 | ... | ... | ... | 20·73 |
| 1877 | 0·34 | 0·08 | ... | ... | ... | 2·60 | 1·94 | 0·56 | 7·34 | 2·29 | ... | 0·45 | 15·60 |
| 1878 | ... | ... | ... | ... | 0·23 | 4·81 | 17·12 | 12·30 | 16·75 | 0·62 | ... | ... | 51·83 |
| 1879 | ... | ... | ... | ... | 0·05 | 13·30 | 3·14 | 4·07 | 3·25 | ... | ... | ... | 23·81 |
| 1880 | ... | ... | ... | ... | 0·28 | 2·94 | 7·61 | 3·38 | 8·13 | 0·28 | ... | ... | 22·62 |
| 1881 | ... | ... | ... | 0·25 | 0·10 | 0·70 | 24·99 | 3·21 | 4·77 | ... | ... | P | 34·62 P |
| 1882 | P | ... | P | ... | ... | 1·02 | 12·03 | 1·41 | 4·93 | ... | ... | ... | 19·39 P |
| 1883 | 0·13 | ... | ... | ... | ... | 1·64 | 17·14 | 0·32 | 4·50 | 1·30 | ... | ... | 25·03 |
| Mean | **0·05** | **0·08** | **0·02** | **0·01** | **0·35** | **5·29** | **9·48** | **6·39** | **4·44** | **0·78** | **0·24** | **0·07** | **27·20** |
| 1884 | ... | ... | ... | ... | ... | 8·54 | 16·76 | 10·16 | 6·26 | 0·02 | ... | 0·06 | 41·80 |
| 1885 | 0·05 | ... | ... | ... | 0·26 | 0·58 | 10·28 | 12·96 | 1·20 | 1·02 | ... | ... | 26·35 |
| 1886 | ... | ... | ... | ... | 1·71 | 10·66 | 23·74 | 3·69 | 0·56 | 1·06 | 0·03 | ... | 41·45 |
| Mean | **0·05** | **0·07** | **0·01** | **0·01** | **0·39** | **5·44** | **10·34** | **6·69** | **4·23** | **0·77** | **0·21** | **0·06** | **28·27** |

No. 278. MÁNAKWÁRA.

Latitude N. 21° 24′. Longitude E. 71° 4′. Elevation 500 feet.

Administration: BOMBAY. Rainfall Province No. XIV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | ... | ... | 1·00 | 1·15 | ... | 1·60 | 4·67 | 4·11 | 1·47 | ... | ... | 0·35 | 14·35 |
| 1876 | ... | ... | ... | ... | 0·35 | 5·20 | 13·97 | 5·71 | 0·65 | ... | ... | ... | 25·88 |
| 1877 | 0·29 | 0·68 | ... | 0·17 | 0·97 | 4·19 | 1·07 | 0·40 | 1·21 | 7·66 | ... | 0·19 | 16·83 |
| 1878 | ... | ... | ... | 0·03 | ... | 9·21 | 32·35 | 16·35 | 12·76 | 1·57 | ... | ... | 72·27 |
| 1879 | ... | ... | ... | ... | 0·58 | 10·00 | 0·30 | 5·76 | 1·69 | 1·06 | ... | ... | 19·39 |
| 1880 | ... | ... | ... | ... | ... | 1·38 | 5·59 | 3·27 | 12·24 | 3·38 | ... | ... | 25·86 |
| 1881 | ... | ... | ... | ... | ... | 0·74 | 16·42 | 7·01 | 1·82 | ... | ... | ... | 25·99 |
| 1882 | ... | ... | ... | ... | ... | 5·53 | 13·09 | 1·32 | 7·48 | ... | 0·80 | ... | 28·22 |
| 1883 | 0·45 | ... | ... | ... | ... | 5·93 | 9·27 | 0·93 | 6·54 | 1·85 | ... | ... | 24·97 |
| Mean | **0·08** | **0·08** | **0·11** | **0·15** | **0·21** | **4·86** | **10·75** | **4·98** | **5·10** | **1·72** | **0·12** | **0·06** | **28·22** |

MÁNAKWÁRA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | ... | ... | ... | ... | ... | 5·91 | 24·36 | 6·57 | 11·67 | 0·28 | ... | 0·22 | 49·01 |
| 1885 | ... | ... | ... | ... | ... | 1·15 | 22·91 | 9·73 | 1 83 | ... | 0·75 | ... | 36·37 |
| 1886 | 0·03 | ... | ... | ... | 0·10 | 13·10 | 18·03 | 5·00 | 1·05 | 2·47 | 0·35 | ... | 40·73 |
| Mean | **0·06** | **0·06** | **0·08** | **0·11** | **0·17** | **5·33** | **13·55** | **5·51** | **5·03** | **1·52** | **0·16** | **0·06** | **31·64** |

No. 279. SONGAD.

Latitude N. 21° 10′. Longitude E. 73° 36′. Elevation 100 feet.

Administration: BOMBAY. Rainfall Province No. XIV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | ... | 0·25 | ... | 0·20 | 0·40 | 1·92 | 2·83 | 1·72 | 9·64 | ... | ... | ... | 16·96 |
| 1876 | ... | ... | ... | ... | ... | 0·40 | 9·47 | 8·52 | 3·89 | ... | ... | ... | 22·28 |
| 1877 | 0·10 | 0·82 | ... | 0·19 | 0·33 | 2·75 | 0·90 | 1·29 | 1·76 | 5·12 | 0·20 | 0·15 | 13·61 |
| 1878 | ... | ... | ... | ... | ... | 5·83 | 19·68 | 13·10 | 16·97 | ... | ... | ... | 55·58 |
| 1879 | ... | 0·15 | ... | ... | 0·92 | 5·57 | 5·44 | 5·45 | 1·51 | ... | ... | ... | 19·04 |
| 1880 | ... | ... | ... | ... | 0·04 | 1·38 | 5·52 | 3·20 | 14·32 | 1·25 | 0·02 | ... | 25·73 |
| 1881 | ... | 0·03 | 0·51 | ... | ... | 0·21 | 14·93 | 5·83 | 2·54 | 0·43 | 0·18 | ... | 24·66 |
| 1882 | ... | ... | ... | ... | ... | 1·67 | 9·32 | 1·30 | 6·56 | ... | 0·01 | ... | 18·86 |
| 1883 | 0·23 | ... | 0·03 | ... | ... | 1·76 | 6·77 | 1·96 | 4·75 | 4·41 | ... | ... | 19·91 |
| Mean | **0·04** | **0·12** | **0·06** | **0·04** | **0·19** | **2·21** | **8·32** | **4·71** | **6·88** | **1·33** | **0·05** | **0·02** | **23·96** |
| 1884 | 0·15 | ... | ... | ... | ... | 1·77 | 14·52 | 1·80 | 11·67 | 0·28 | ... | ... | 30·19 |
| 1885 | ... | ... | ... | ... | 0·42 | 1·66 | 11·89 | 8·02 | 2·02 | 2·68 | ... | ... | 26·69 |
| 1886 | ... | ... | ... | ... | 1·59 | 7·35 | 14·45 | 3·66 | 1·22 | 3·36 | ... | ... | 31·63 |
| Mean | **0·04** | **0·10** | **0·05** | **0·03** | **0·31** | **2·69** | **9·64** | **4·65** | **6·40** | **1·46** | **0·03** | **0·01** | **25·41** |

No. 280. BROACH.

Latitude N. 21° 41′. Longitude E. 73° 1′. Elevation 58 feet.

Administration: BOMBAY. Rainfall Province No. XIV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | ? | ? | ? | ? | ? | 0·03 | 21·16 | 3·98 | 7·41 | ? | ? | ? | ? |
| 1863 | ? | ? | ? | ? | ? | 34·36 | 8·22 | 3·25 | 4·94 | ? | ? | ? | ? |
| 1864 | ? | ? | ? | ? | ? | 3·75 | 15·60 | 1·65 | ... | ? | ? | ? | ? |
| 1865 | ? | ? | ? | ? | ? | 0·61 | 9·03 | 17·74 | 3·87 | ? | ? | ? | ? |
| 1866 | ? | ? | ? | ? | ? | 4·00 | 11·30 | 16·28 | 1·44 | ? | ? | ? | ? |

BROACH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ? | ? | ? | ? | ? | 3·14 | 10·75 | 10·65 | 6·47 | 1·97 | ... | ? | ? |
| 1868 | ? | ? | ? | ? | ? | 3·27 | 13·16 | 26·54 | 0·65 | ... | ... | ... | ? |
| 1869 | ... | ... | ... | ... | ... | 0·39 | 10·31 | 12·13 | 18·84 | 2·65 | ... | ... | 44·32 |
| 1870 | ... | ... | ... | ... | ... | 12·85 | 10·70 | 1·05 | 1·52 | 1·05 | ... | ? | 27·17 ? |
| 1871 | ... | ... | ... | ... | ... | 3·19 | 3·21 | 8·79 | 1·92 | ... | 2·51 | 0·42 | 20·04 |
| 1872 | ... | ... | ... | ... | ... | 8·53 | 14·56 | 2·87 | 10·24 | ... | ... | ... | 36·20 |
| 1873 | ... | 0·06 | ... | ... | ... | 5·34 | 17·46 | 7·21 | 4·92 | 0·36 | ... | ... | 35·35 |
| 1874 | ... | ... | ... | ... | ... | 12·45 | 12·22 | 14·59 | 0·30 | ... | ... | ... | 39·56 |
| 1875 | ... | 0·27 | ... | ... | ... | 10·67 | 25·67 | 5·82 | 14·32 | ... | ... | 0·09 | 56·84 |
| 1876 | ... | ... | ... | ... | ... | 3·69 | 12·57 | 12·61 | 3·51 | ... | ... | ... | 32·38 |
| 1877 | 0·23 | ... | ... | ... | 0·10 | 3·79 | 2·75 | 1·87 | 4·22 | 7·45 | ... | ... | 20·41 |
| 1878 | ... | ... | ... | 0·08 | 0·12 | 6·10 | 27·89 | 17·52 | 13·16 | 2·98 | ... | ... | 67·85 |
| 1879 | ... | ... | ... | ... | 0·46 | 10·48 | 5·04 | 10·99 | 12·14 | 2·40 | ... | ... | 41·51 |
| 1880 | ... | ... | ... | ... | ... | 6·59 | 27·00 | 4·29 | 16·39 | 3·06 | 0·21 | ... | 57·54 |
| 1881 | ... | ... | 0·18 | ... | ... | 5·03 | 25·64 | 9·02 | 3·83 | 0·18 | ... | ... | 43·88 |
| 1882 | ... | ... | ... | ... | ... | 7·36 | 26·83 | 2·25 | 6·67 | ... | ... | ... | 43·11 |
| 1883 | 0·89 | ... | ... | ... | 0·82 | 9·01 | 20·15 | 2·76 | 13·61 | 3·13 | ... | ... | 50·37 |
| Mean | 0·07 | 0·02 | 0·01 | 0·01 | 0·10 | 7·03 | 15·06 | 8·81 | 6·84 | 1·48 | 0·16 | 0·03 | 39·62 |
| 1884 | ... | ... | ... | ... | ... | 3·00 | 20·64 | 4·62 | 23·38 | 0·75 | ... | 0·36 | 52·75 |
| 1885 | ... | ... | 0·02 | ... | ... | 0·68 | 13·22 | 16·41 | 1·57 | 3·90 | ... | ... | 35·80 |
| 1886 | ... | ... | ... | ... | 0·82 | 8·51 | 18·27 | 6·81 | 4·20 | 4·55 | ... | ... | 43·16 |
| Mean | 0·06 | 0·02 | 0·01 | ... | 0·13 | 6·67 | 15·33 | 8·87 | 7·18 | 1·72 | 0·13 | 0·05 | 40·17 |

No. 281. SURAT.

Latitude N. 21° 13′. Longitude E. 72° 46′. Elevation 36 feet.

Administration: BOMBAY. Rainfall Provinee No. XIV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ? | ? | ? | ? | ? | 21·20 | 5·56 | 3·81 | 3·36 | ? | ? | ? | ? |
| 1864 | ? | ? | ? | ? | ? | 6·23 | 8·63 | 4·10 | 1·38 | ? | ? | ? | ? |
| 1865 | ? | ? | ? | ? | ? | 3·12 | 10·35 | 27·75 | 6·26 | ? | ? | ? | ? |
| 1866 | ? | ? | ? | ? | ? | 5·89 | 17·24 | 14·54 | 2·20 | ? | ? | ? | ? |
| 1867 | ? | ? | ? | ? | 0·35 | 6·63 | 5·76 | 18·39 | 2·38 | 1·63 | ... | ? | ? |
| 1868 | ? | ? | ? | ? | ? | 8·86 | 11·63 | 17·62 | 0·40 | ... | ... | ... | ? |
| 1869 | ... | ... | ... | ... | ... | 1·04 | 19·18 | 11·00 | 21·30 | 0·54 | ... | 0·42 | 53·48 |
| 1870 | ... | ... | ... | ... | ... | 16·16 | 15·81 | 2·07 | 4·93 | 1·96 | ... | ? | 40·93 ? |
| 1871 | ... | ... | ... | ... | ... | 11·27 | 5·84 | 3·54 | 2·54 | ... | 1·45 | ... | 24·64 |
| 1872 | ... | ... | ... | ... | ... | 16·73 | 12·46 | 4·98 | 19·12 | 0·46 | ... | ... | 53·75 |
| 1873 | ... | ... | ... | ... | 1·26 | 8·41 | 18·36 | 13·72 | 5·68 | ... | ... | ... | 47·43 |
| 1874 | ... | ... | ... | ... | ... | 16·72 | 14·47 | 5·81 | 4·80 | ... | ... | ... | 41·80 |
| 1875 | ... | 0·45 | ... | ... | ... | 15·30 | 16·13 | 5·22 | 8·51 | ... | ... | ... | 45·61 |

SURAT—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | ... | ... | ... | 7·43 | 17·69 | 22·70 | 1·86 | ... | ... | ... | 49·68 |
| 1877 | ... | ... | ... | ... | ... | 3·13 | 2·48 | 3·98 | 3·65 | 3·42 | ... | 0·07 | 16·73 |
| 1878 | ... | ... | ... | ... | ... | 13·45 | 28·06 | 17·09 | 28·61 | 2·10 | ... | ... | 89·31 |
| 1879 | ... | 0·02 | ... | ... | 0·11 | 8·95 | 5·26 | 12·51 | 5·08 | 3·30 | ... | ... | 35·23 |
| 1880 | ... | ... | ... | ... | ... | 7·70 | 9·67 | 6·77 | 5·15 | 3·21 | ... | ... | 32·50 |
| 1881 | ... | ... | ... | ... | ... | 0·63 | 15·07 | 7·05 | 5·71 | 1·28 | 0·13 | ... | 29·87 |
| 1882 | ... | ... | ... | ... | ... | 8·84 | 22·08 | 1·18 | 10·84 | ... | ... | ... | 42·94 |
| 1883 | 0·66 | ... | ... | ... | 0·17 | 17·76 | 18·76 | 2·33 | 10·52 | 4·30 | ... | ... | 54·50 |
| Mean | 0·04 | 0·03 | ... | ... | 0·12 | 9·78 | 13·36 | 9·82 | 7·35 | 1·31 | 0·09 | 0·03 | 41·03 |
| 1884 | ... | ... | ... | ... | ... | 4·36 | 15·69 | 2·62 | 16·24 | 1·13 | ... | 0·31 | 40·35 |
| 1885 | ... | ... | ... | ... | 1·96 | 0·57 | 14·08 | 17·40 | 1·46 | 2·83 | 0·05 | ... | 38·35 |
| 1886 | ... | ... | ... | ... | 0·04 | 15·08 | 19·86 | 9·73 | 1·93 | 2·77 | ... | ... | 49·41 |
| Mean | 0·04 | 0·03 | ... | ... | 0·80 | 9·39 | 13·76 | 9·83 | 7·25 | 1·45 | 0·80 | 0·04 | 42·79 |

No. 282. IGATPURI.

Latitude N. 19° 40′. Longitude E. 73° 37′. Elevation 1,922 feet.

Administration: BOMBAY. Rainfall Province No. XVII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | ... | ... | ... | 0·60 | ... | 25·83 | 65·29 | 49·54 | 11·89 | 5·06 | ... | ... | 158·21 |
| 1862 | P | P | P | P | P | 27·49 | 27·54 | 25·14 | 22·97 | 9·61 | P | P | P |
| 1863 | P | P | P | P | P | 62·54 | 43·67 | 41·96 | 14·40 | 0·71 | P | P | P |
| 1864 | P | P | P | P | P | 8·57 | 48·35 | 31·28 | 16·80 | 0·18 | P | P | P |
| 1865 | P | P | P | P | P | 13·07 | 34·64 | 63·12 | 17·07 | 8·60 | P | P | P |
| 1866 | P | P | P | P | P | 20·53 | 38·70 | 45·57 | 6·74 | 3·18 | P | P | P |
| 1867 | P | P | P | P | P | 11·05 | 25·72 | 50·56 | 11·71 | 11·57 | ... | P | P |
| 1868 | P | P | P | P | P | 22·34 | 38·53 | 34·38 | 6·79 | 0·05 | ... | ... | P |
| 1869 | ... | ... | ... | ... | 1·90 | 5·57 | 45·58 | 17·33 | 24·86 | 6·89 | 1·33 | 1·53 | 104·99 |
| 1870 | ... | ... | ... | ... | ... | 23·68 | 42·58 | 16·93 | 6·22 | 9·89 | ... | P | 99·30 P |
| 1871 | 1·22 | ... | ... | 0·35 | 5·24 | 20·40 | 30·37 | 22·00 | 9·57 | 0·67 | 2·17 | ... | 91·99 |
| 1872 to 1873 | Not on record. | | | | | | | | | | | | |
| 1874 | ... | ... | ... | ... | ... | 26·98 | 49·07 | 33·24 | 12·36 | 1·04 | 0·20 | ... | 122·89 |
| 1875 | 0·07 | 0·09 | 0·81 | 0·23 | ... | 28·56 | 58·63 | 23·44 | 35·84 | 0·60 | ... | ... | 148·27 |
| 1876 | ... | ... | ... | ... | ... | 11·65 | 57·55 | 34·70 | 10·67 | ... | ... | ... | 114·57 |
| 1877 | 0·08 | 1·54 | ... | ... | 0·25 | 9·39 | 28·02 | 13·55 | 12·25 | 3·18 | ... | ... | 68·26 |
| 1878 | ... | ... | ... | 0·13 | ... | 14·13 | 54·29 | 54·09 | 31·58 | 6·05 | 0·27 | ... | 160·54 |
| 1879 | ... | ... | ... | ... | 4·76 | 39·11 | 14·07 | 58·12 | 12·12 | 5·07 | ... | ... | 133·25 |
| 1880 | ... | ... | ... | ... | 0·76 | 20·14 | 53·23 | 21·74 | 20·68 | 7·40 | ... | ... | 123·95 |
| 1881 | ... | ... | ... | ... | 1·54 | 13·13 | 59·50 | 34·75 | 14·29 | 1·75 | 0·43 | ... | 125·39 |

IGATPURI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | ... | ... | ... | ... | 0·30 | 38·44 | 74·72 | 16·65 | 29·69 | 1·81 | 0·36 | 0·92 | 162·89 |
| 1883 | 1·02 | ... | ... | ... | 1·43 | 24·72 | 48·67 | 17·55 | 29·30 | 11·68 | 0·03 | ... | 134·40 |
| Mean | 0·17 | 0·12 | 0·06 | 0·09 | 1·16 | 22·25 | 44·70 | 33·60 | 17·04 | 4·52 | 0·30 | 0·18 | 124·19 |
| 1884 | 0·30 | ... | ... | ... | ... | 17·70 | 75·38 | 29·47 | 35·26 | 4·81 | 0·02 | 2·12 | 165·06 |
| 1885 | ... | ... | ... | ... | 0·31 | 8·52 | 48·51 | 49·52 | 10·65 | 5·00 | 0·63 | ... | 123·14 |
| 1886 | ... | ... | ... | ... | 2·13 | 22·73 | 56·79 | 25·78 | 10·56 | 13·08 | 0·20 | ... | 131·27 |
| Mean | 0·16 | 0·10 | 0·05 | 0·08 | 1·10 | 21·51 | 46·64 | 33·77 | 17·26 | 4·91 | 0·30 | 0·27 | 126·15 |

No. 283. TANNA.

Latitude N. 19° 12′. Longitude E. 73° 2′. Elevation 24 feet.

Administration: BOMBAY. Rainfall Province No. XVII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | ? | 26·57 | 44·09 | 15·49 | 12·39 | ? | ? | ? | ? |
| 1845 | ? | ? | ? | ? | ? | 28·89 | 31·28 | 15·64 | 12·02 | ? | ? | ? | ? |
| 1846 | ? | ? | ? | ? | ? | 36·76 | 57·72 | 13·59 | 22·90 | ? | ? | ? | ? |
| 1847 | ? | ? | ? | ? | ? | 45·00 | 20·60 | 25·03 | 14·20 | ? | ? | ? | ? |
| 1848 to 1861 | Not on record. | | | | | | | | | | | | |
| 1862 | ? | ? | ? | ? | ? | 22·41 | 17·69 | 17·77 | 23·82 | ? | ? | ? | ? |
| 1863 | ? | ? | ? | ? | 0·99 | 27·78 | 34·29 | 21·21 | 13·23 | ? | ? | ? | ? |
| 1864 | ? | ? | ? | ? | ? | 28·46 | 23·03 | 18·35 | 6·16 | ? | ? | ? | ? |
| 1865 | ? | ? | ? | ? | ? | 14·50 | 28·42 | 45·13 | 4·53 | ? | ? | ? | ? |
| 1866 | ? | ? | ? | ? | ? | 18·22 | 42·61 | 29·98 | 4·13 | ? | ? | ? | ? |
| 1867 | ... | ... | ... | ... | ... | 19·34 | 41·28 | 30·80 | 9·90 | 7·13 | ... | ? | 108·45 ? |
| 1868 | ... | ... | ... | ... | ? | 30·30 | 34·21 | 23·42 | 4·55 | ... | ... | ... | 92·48 ? |
| 1869 | ... | ... | ... | ... | ... | 18·25 | 37·36 | 23·86 | 20·44 | 5·70 | ... | ... | 105·61 |
| 1870 | ... | ... | ... | ... | ... | 34·85 | 36·27 | 13·25 | 2·90 | 6·41 | ... | ? | 93·68 ? |
| 1871 | ... | ... | ... | ... | ... | 17·90 | 22·58 | 12·55 | 7·93 | 0·48 | ... | ... | 61·44 |
| 1872 | ... | ... | ... | ... | ... | 29·58 | 3·29 | 11·57 | 11·52 | 0·10 | ... | ... | 86·06 |
| 1873 | ... | ... | ... | ... | 1·21 | 20·29 | 32·26 | 27·60 | 14·58 | ... | 0·30 | ... | 96·24 |
| 1874 | ... | ... | ... | ... | ... | 27·53 | 69·34 | 19·53 | 14·09 | 0·37 | ... | 0·10 | 130·96 |
| 1875 | 0·15 | ... | ... | ... | 0·10 | 33·06 | 29·03 | 16·01 | 19·87 | ... | ... | ... | 98·22 |
| 1876 | ... | ... | ... | ... | ... | 13·72 | 42·45 | 17·35 | 9·66 | ... | ... | ... | 83·18 |
| 1877 | ... | 1·43 | 0·11 | ... | 0·44 | 12·00 | 17·53 | 18·00 | 6·54 | 5·94 | ... | ... | 61·99 |
| 1878 | ... | ... | ... | ... | ... | 25·77 | 57·41 | 30·68 | 32·16 | 6·07 | ... | ... | 152·09 |
| 1879 | ... | ... | ... | ... | 3·70 | 32·13 | 19·64 | 39·66 | 4·76 | 0·27 | ... | ... | 100·16 |
| 1880 | ... | ... | ... | ... | ... | 22·43 | 31·00 | 8·10 | 21·50 | 3·12 | ... | ... | 86·15 |
| 1881 | ... | ... | ... | ... | 0·14 | 16·15 | 40·08 | 21·08 | 10·68 | 3·33 | ... | ... | 91·46 |
| 1882 | ... | ... | ... | ... | ... | 28·42 | 33·46 | 8·17 | 10·60 | 0·53 | 0·29 | ... | 81·47 |
| 1883 | 0·36 | ... | ... | ... | 0·61 | 25·92 | 48·35 | 20·50 | 16·69 | 7·50 | ... | ... | 119·93 |
| Mean | 0·03 | 0·08 | 0·01 | ... | 0·42 | 25·24 | 35·59 | 20·94 | 12·76 | 2·76 | 0·03 | 0·01 | 97·87 |

TANNA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 0·09 | ... | ... | ... | ... | 15·11 | 40·95 | 16·16 | 26·14 | 3·21 | 0·16 | 1·19 | 103·01 |
| 1885 | ... | ... | ... | 0·03 | ... | 9·85 | 35·29 | 28·99 | 7·56 | 6·19 | 0·20 | ... | 88·11 |
| 1886 | ... | ... | ... | ... | 0·33 | 39·20 | 48·29 | 13·71 | 6·70 | 10·72 | 0·05 | ... | 119·00 |
| Mean | 0·03 | 0·07 | 0·01 | ... | 0·38 | 24·84 | 36·20 | 20·80 | 12·83 | 3·35 | 0·05 | 0·07 | 98·63 |

No. 284. BOMBAY (BYCULLA).

Latitude N. 18° 58′. Longitude E. 72° 52′. Elevation 17 feet.

Administration: BOMBAY.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | ? | ? | ? | ? | ? | 22·43 | 15·92 | 13·65 | 24·56 | ? | ? | ? | ? |
| 1863 | ? | ? | ? | ? | ? | 31·44 | 26·89 | 13·25 | 8·53 | ? | ? | ? | ? |
| 1864 | ? | ? | ? | ? | ? | 25·65 | 13·72 | 11·42 | 5·21 | ? | ? | ? | ? |
| 1865 | ? | ? | ? | ? | ? | 14·13 | 16·47 | 39·11 | 3·75 | ? | ? | ? | ? |
| 1866 | ? | ? | ? | ? | ? | 17·56 | 47·07 | 23·87 | 3·89 | ? | ? | ? | ? |
| 1867 | ? | ? | ? | ? | ... | 12·73 | 36·87 | 17·64 | 8·39 | 4·80 | ... | ? | ? |
| 1868 | ? | ? | ? | ? | ? | 21·18 | 26·65 | 23·95 | 6·45 | 0·20 | ... | ... | ? |
| 1869 | ... | ... | ... | ... | 0·04 | 29·56 | 28·93 | 28·67 | 24·97 | 3·22 | ... | ... | 115·39 |
| 1870 | ... | ... | ... | ... | 0·22 | 24·25 | 29·14 | 11·47 | 10·03 | 4·26 | ... | ? | 79·37 ? |
| 1871 | 2·10 | ... | ... | ... | 0·65 | 11·36 | 16·26 | 8·96 | 7·87 | ... | ... | ... | 47·20 |
| 1872 | ... | ... | ... | ... | ... | 34·33 | 27·98 | 10·11 | 17·72 | ... | ... | ... | 90·14 |
| 1873 | ... | ... | ... | ... | 1·15 | 15·97 | 21·88 | 36·61 | 11·81 | ... | ... | ... | 87·42 |
| 1874 | ... | ... | ... | ... | ... | 21·04 | 46·50 | 11·24 | 14·78 | ... | ... | ... | 93·56 |
| 1875 | ... | ... | ... | ... | ... | 26·75 | 16·04 | 15·91 | 29·38 | ... | ... | ... | 88·08 |
| 1876 | ... | ... | ... | ... | ... | 13·53 | 27·34 | 11·94 | 6·12 | ... | ... | ... | 58·93 |
| 1877 | ... | ... | ... | ... | ... | 29·06 | 12·93 | 13·41 | 7·48 | 7·88 | ... | ... | 70·76 |
| 1878 | ... | ... | ... | ... | ... | 25·14 | 48·59 | 20·03 | 18·80 | 8·67 | ... | ... | 121·23 |
| 1879 | ... | ... | ... | ... | 4·04 | 20·89 | 16·06 | 25·23 | 6·64 | 0·55 | ... | ... | 73·41 |
| 1880 | ... | ... | 0·26 | ... | ... | 17·52 | 21·27 | 4·50 | 26·02 | 1·66 | ... | ... | 71·23 |
| 1881 | ... | ... | ... | ... | 0·27 | 11·87 | 33·73 | 22·16 | 6·97 | 2·25 | ... | ... | 77·25 |
| 1882 | ... | ... | ... | ... | ... | 32·76 | 30·71 | 2·93 | 10·83 | 0·49 | ... | ... | 77·72 |
| 1883 | 0·26 | ... | ... | ... | 0·61 | 22·77 | 37·05 | 15·57 | 13·16 | 10·72 | 0·65 | ... | 100·79 |
| Mean | 0·16 | ... | 0·02 | ... | 0·44 | 21·91 | 27·18 | 17·35 | 12·43 | 2·63 | 0·04 | ... | 82·16 |
| 1884 | ... | ... | ... | ... | ... | 13·55 | 28·78 | 17·81 | 17·84 | 2·19 | ... | 1·13 | 81·30 |
| 1885 | ... | ... | ... | ... | ... | 5·70 | 23·34 | 29·18 | 9·64 | 5·90 | ... | ... | 73·76 |
| 1886 | ... | ... | ... | ... | 1·23 | 39·04 | 36·73 | 8·29 | 5·55 | 3·09 | 0·50 | ... | 94·43 |
| Mean | 0·13 | ... | 0·01 | ... | 0·43 | 21·61 | 27·47 | 17·48 | 12·25 | 2·79 | 0·06 | 0·06 | 82·29 |

No. 284*a*. BOMBAY (COLABA.)

Latitude N. 18° 54′. Longitude E. 72° 49′. Elevation 37 feet.

Administration: BOMBAY. Rainfall Province No. XVII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1817 | ? | ? | ? | ? | ? | 45·72 | 23·67 | 9·34 | 24·87 | ... | ? | ? | ? |
| 1818 | ? | ? | ? | ? | ? | 22·54 | 17·69 | 28·45 | 10·39 | 2·00 | ? | ? | ? |
| 1819 | ? | ? | ? | ? | ? | 15·95 | 31·60 | 20·24 | 10·11 | ... | ? | ? | ? |
| 1820 | ? | ? | ? | ? | ? | 18·82 | 28·37 | 19·49 | 10·66 | ... | ? | ? | ? |
| 1821 | ? | ? | ? | ? | ? | 15·18 | 20·60 | 28·52 | 18·29 | ... | ? | ? | ? |
| 1822 | ? | ? | ? | ? | ? | 29·64 | 26·59 | 33·83 | 22·16 | ... | ? | ? | ? |
| 1823 | ? | ? | ? | ? | ? | 21·76 | 15·96 | 19·70 | 4·28 | ... | ? | ? | ? |
| 1824 | ? | ? | ? | ? | ? | 3·89 | 8·07 | 17·86 | 1·78 | 2·27 | ? | ? | ? |
| 1825 | ? | ? | ? | ? | ? | 24·45 | 25·17 | 12·94 | 9·68 | ... | ? | ? | ? |
| 1826 | ? | ? | ? | ? | ? | 17·75 | 26·97 | 8·40 | 23·50 | 1·87 | ? | ? | ? |
| 1827 | ? | ? | ? | ? | ? | 49·15 | 10·29 | 10·51 | 10·16 | 0·92 | ? | ? | ? |
| 1828 | ? | ? | ? | ? | ? | 23·53 | 52·75 | 17·22 | 22·08 | 6·40 | ? | ? | ? |
| 1829 | ? | ? | ? | ? | ? | 27·86 | 19·78 | 12·40 | 4·95 | 0·66 | ? | ? | ? |
| 1830 | ? | ? | ? | ? | ? | 20·96 | 32·46 | 10·66 | 7·78 | ... | ? | ? | ? |
| 1831 | ? | ? | ? | ? | ? | 22·16 | 27·31 | 27·64 | 22·34 | 2·08 | ? | ? | ? |
| 1832 | ? | ? | ? | ? | ? | 13·63 | 48·05 | 4·65 | 7·11 | 0·65 | ? | ? | ? |
| 1833 | ? | ? | ? | ? | ? | 12·50 | 21·80 | 13·35 | 23·54 | 0·20 | ? | ? | ? |
| 1834 | ? | ? | ? | ? | ? | 14·16 | 21·83 | 18·05 | 12·55 | 3·88 | ? | ? | ? |
| 1835 | ? | ? | ? | ? | ? | 9·99 | 4·27 | 35·76 | 12·17 | 0·42 | ? | ? | ? |
| 1836 | ? | ? | ? | ? | ? | 21·36 | 24·05 | 37·41 | 4·69 | ... | ? | ? | ? |
| 1837 | ? | ? | ? | ? | ? | 12·61 | 24·39 | 22·43 | 5·15 | ... | ? | ? | ? |
| 1838 | ? | ? | ? | ? | ? | 29·70 | 8·70 | 7·34 | 5·04 | ... | ? | ? | ? |
| 1839 | ? | ? | ? | ? | ? | 18·28 | 32·19 | 18·45 | 4·70 | ... | ? | ? | ? |
| 1840 | ? | ? | ? | ? | ? | 25·04 | 24·24 | 4·20 | 7·55 | 2·12 | ? | ? | ? |
| 1841 | ? | ? | ? | ? | ? | 25·27 | 21·21 | 20·53 | 1·27 | 3·21 | ? | ? | ? |
| 1842 | ? | ? | ? | ? | ? | 16·84 | 26·45 | 37·10 | 10·41 | 4·36 | ? | ? | ? |
| 1843 | ? | ? | ? | ? | ? | 9·33 | 22·49 | 18·20 | 9·00 | 0·25 | ? | ? | ? |
| 1844 | ? | ? | ? | ? | ? | 14·17 | 35·52 | 6·55 | 9·16 | ... | ? | ? | ? |
| 1845 | ? | ? | ? | ? | ? | 19·70 | 20·44 | 6·56 | 8·03 | ... | ? | ? | ? |
| 1846 | ? | ? | ? | ? | ? | 31·71 | 40·56 | 5·60 | 8·45 | 1·16 | ? | ? | ? |
| 1847 | 0·09 | 0·02 | ... | 0·31 | 1·40 | 37·56 | 16·46 | 8·68 | 5·68 | 0·28 | 5·53 | ... | 76·01 |
| 1848 | ... | ... | ... | 0·58 | 5·67 | 39·98 | 13·90 | 7·37 | 2·32 | 5·85 | 0·19 | ... | 75·86 |
| 1849 | 0·34 | ... | ... | ... | ... | 23·41 | 50·99 | 12·66 | 26·13 | 0·75 | 0·61 | ... | 114·89 |
| 1850 | ... | ... | ... | ... | ... | 14·80 | 20·15 | 5·38 | 4·77 | 4·89 | 0·25 | ... | 50·24 |
| 1851 | ... | ... | ... | ... | 0·52 | 24·50 | 47·02 | 20·03 | 3·89 | 0·04 | 0·07 | ... | 96·07 |
| 1852 | ... | ... | 0·01 | ... | 0·30 | 21·76 | 22·17 | 11·16 | 12·67 | 0·19 | ... | 1·01 | 69·27 |
| 1853 | ... | ... | 0·01 | ... | ... | 33·70 | 13·06 | 5·95 | 9·83 | ... | ... | ... | 62·55 |
| 1854 | ... | ... | ... | ... | ... | 16·34 | 38·95 | 3·90 | 13·61 | 7·49 | 1·85 | ... | 82·14 |
| 1855 | ... | ... | ... | ... | ... | 20·18 | 11·83 | 3·82 | 5·29 | 0·06 | ... | ... | 41·18 |
| 1856 | ... | ... | ... | ... | 2·09 | 24·66 | 24·48 | 6·73 | 7·78 | 0·06 | ... | 0·12 | 65·92 |
| 1857 | ... | ... | ... | ... | 0·57 | 9·26 | 8·74 | 15·71 | 14·21 | 2·78 | ... | ... | 51·27 |
| 1858 | ... | ... | ... | 0·15 | 1·57 | 14·44 | 20·12 | 7·48 | 15·47 | 3·22 | ... | ... | 62·45 |
| 1859 | ... | ... | ... | ... | ... | 26·87 | 28·70 | 15·04 | 5·94 | 1·06 | ... | ... | 77·61 |
| 1860 | ... | ... | ... | ... | 0·03 | 21·97 | 22·39 | 7·11 | 8·15 | 2·50 | ... | ... | 62·15 |
| 1861 | ... | ... | ... | ... | 0·69 | 15·43 | 25·34 | 30·35 | 3·24 | 1·86 | ... | ... | 76·91 |
| 1862 | ... | ... | ... | ... | 0·01 | 22·31 | 15·10 | 12·65 | 21·69 | 1·42 | 0·45 | ... | 73·63 |
| 1863 | 0·41 | ... | ... | 0·11 | 0·07 | 23·41 | 30·78 | 10·60 | 9·98 | 2·32 | ... | ... | 77·68 |
| 1864 | ... | ... | ... | ... | 0·01 | 15·42 | 13·36 | 10·72 | 5·59 | ... | 0·47 | ... | 45·57 |
| 1865 | 0·38 | ... | ... | ... | ... | 10·61 | 18·28 | 36·42 | 4·86 | 6·16 | 1·14 | ... | 77·85 |

BOMBAY (COLABA)—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1866 | ... | 0·11 | ... | ... | ... | 13·47 | 40·34 | 20·34 | 3·44 | 0·74 | ... | ... | 78·44 |
| 1867 | ... | ... | ... | ... | ... | 8·70 | 29·39 | 12·21 | 6·80 | 5·07 | 0·13 | ... | 62·30 |
| 1868 | ... | ... | 0·01 | ... | ... | 13·52 | 20·43 | 20·29 | 7·71 | 0·14 | 0·02 | ... | 62·12 |
| 1869 | ... | ... | ... | ... | 0·03 | 26·22 | 23·89 | 15·24 | 22·56 | 3·55 | 0·05 | 0·12 | 91·66 |
| 1870 | ... | ... | 0·03 | 0·02 | ... | 21·73 | 26·43 | 6·27 | 7·08 | 4·65 | ... | ... | 66·21 |
| 1871 | 2·22 | ... | ... | ... | 1·25 | 8·91 | 9·96 | 8·95 | 6·01 | 0·25 | 2·97 | 0·06 | 40·58 |
| 1872 | ... | ... | ... | ... | 0·06 | 24·43 | 24·84 | 9·49 | 16·59 | 1·07 | ... | ... | 76·48 |
| 1873 | ... | 0·05 | ... | ... | 0·51 | 20·36 | 16·98 | 23·96 | 7·77 | 0·07 | ... | ... | 69·70 |
| 1874 | ... | ... | ... | ... | 0·05 | 18·68 | 41·24 | 11·14 | 11·05 | 0·02 | ... | ... | 82·18 |
| 1875 | 0·47 | ... | ... | ... | ... | 24·36 | 15·39 | 12·23 | 31·76 | ... | 0·35 | ... | 84·56 |
| 1876 | ... | ... | ... | ... | 0·01 | 12·97 | 23·69 | 8·66 | 4·68 | ... | ... | ... | 50·01 |
| 1877 | 0·22 | 0·52 | ... | ... | ... | 35·58 | 11·10 | 8·51 | 8·89 | 8·33 | ... | ... | 73·15 |
| 1878 | 0·03 | ... | ... | 0·02 | 0·02 | 19·99 | 48·33 | 20·46 | 16·42 | 4·89 | 2·61 | ... | 112·77 |
| 1879 | ... | ... | 0·03 | ... | 5·23 | 16·56 | 11·21 | 22·36 | 5·61 | 0·40 | ... | ... | 61·40 |
| 1880 | ... | 0·01 | 0·02 | ... | ... | 21·48 | 18·37 | 4·08 | 22·80 | 1·18 | ... | ... | 67·94 |
| 1881 | ... | ... | 0·04 | ... | 0·36 | 15·29 | 29·47 | 19·06 | 4·56 | 4·17 | 0·09 | ... | 73·04 |
| 1882 | ... | 0·04 | 0·02 | 0·08 | 0·02 | 27·54 | 26·94 | 3·36 | 10·08 | 1·12 | 0·03 | ... | 69·23 |
| 1883 | 0·12 | ... | ... | ... | 0·33 | 13·65 | 39·88 | 12·57 | 12·37 | 10·40 | 0·86 | ... | 90·18 |
| Mean | **0·12** | **0·02** | ... | **0·03** | **0·56** | **20·80** | **24·52** | **14·99** | **10·74** | **1·78** | **0·48** | **0·04** | **74·08** |
| 1884 | 0·03 | ... | ... | ... | ... | 13·25 | 25·87 | 15·29 | 17·04 | 2·22 | 0·60 | 1·14 | 75·44 |
| 1885 | ... | ... | ... | ... | 0·02 | 5·11 | 21·81 | 25·42 | 12·01 | 3·54 | ... | ... | 67·91 |
| 1886 | ... | ... | ... | 0·01 | 0·96 | 43·45 | 35·79 | 10·69 | 6·54 | 1·69 | 0·61 | ... | 99·74 |
| Mean | **0·11** | **0·02** | ... | **0·03** | **0·54** | **20·79** | **24·67** | **15·08** | **10·78** | **1·81** | **0·47** | **0·60** | **74·90** |

No. 285. MATHERAN.

Latitude N. 18° 59′. Longitude E. 73° 18′. Elevation 2,200 feet.

Administration : BOMBAY. Rainfall Province No. XVII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | ... | ... | ... | ... | ... | 46·99 | 65·99 | 36·82 | 15·41 | 3·18 | ... | ... | 168·39 |
| 1872 | ... | ... | ... | ... | ... | 34·70 | 73·05 | 43·20 | 27·80 | 0·90 | ... | ... | 179·65 |
| 1873 | ... | ... | ... | ... | ... | 21·15 | 68·79 | 61·08 | 28·04 | ... | ... | ... | 179·06 |
| 1874 | ... | ... | ... | ... | ... | 49·75 | 99·75 | 46·35 | 19·65 | 2·75 | 3·05 | ... | 221·30 |
| 1875 | 0·22 | ... | 0·15 | 0·10 | ... | 41·46 | 94·45 | 39·08 | 38·40 | 2·17 | ... | 0·20 | 216·23 |
| 1876 | ... | ... | ... | ... | ... | 20·11 | 104·76 | 54·00 | 12·62 | ... | ... | ... | 191·49 |
| 1877 | ... | ... | 0·08 | ... | 0·10 | 23·54 | 54·28 | 33·83 | 17·46 | 6·12 | ... | ... | 135·41 |
| 1878 | ... | ... | ... | ... | ... | 28·00 | 81·47 | 88·21 | 61·73 | 13·71 | 1·29 | ... | 274·41 |
| 1879 | ... | 0·10 | ... | ... | 4·88 | 43·95 | 32·07 | 92·86 | 17·68 | 1·63 | 0·02 | ... | 193·19 |
| 1880 | ... | 0·02 | ... | ... | ... | 32·44 | 77·54 | 31·34 | 45·93 | 6·06 | 0·18 | ... | 193·51 |
| 1881 | ... | ... | ... | ... | ... | 21·35 | 96·44 | 65·32 | 21·74 | 5·06 | 0·02 | ... | 209·93 |
| 1882 | ... | ... | ... | ... | 0·20 | 78·67 | 115·48 | 26·47 | 39·32 | 2·67 | 2·89 | ... | 265·70 |
| 1883 | 0·10 | ... | ... | ... | 1·29 | 37·76 | 104·39 | 32·81 | 52·10 | 12·34 | ... | ... | 240·79 |
| Mean | **0·02** | **0·01** | **0·02** | **0·01** | **0·50** | **36·91** | **82·19** | **50·11** | **30·61** | **4·35** | **0·57** | **0·02** | **205·32** |

MATHERAN—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 0·65 | ... | ... | 0·37 | ... | 23·92 | 97·59 | 46·00 | 66·00 | 11·57 | ... | 1·01 | 247·11 |
| 1885 | ... | ... | ... | ... | .... | 25·29 | 91·19 | 65·90 | 17·68 | 4·03 | 1·82 | ... | 205·91 |
| 1886 | ... | ... | ... | ... | 5·78 | 41·42 | 92·54 | 47·83 | 14·38 | 12·63 | 0·71 | ... | 215·29 |
| Mean | 0·06 | 0·01 | 0·01 | 0·03 | 0·77 | 35·66 | 84·36 | 50·69 | 31·00 | 5·30 | 0·62 | 0·08 | 208·59 |

No. 286. LANAULI.

Latitude N. 18° 44′. Longitude E. 73° 27′. Elevation 2,037 feet.

Administration: BOMBAY. Rainfall Province No. XVII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1874 | ... | ... | ... | ... | ... | 46·99 | 73·01 | 48 78 | 11·74 | 3·30 | 0·11 | 0·15 | 184·08 |
| 1875 | 9·37 | 0·19 | 1·49 | 0·15 | 0·51 | 34·04 | 75·50 | 40·04 | 40·20 | 3·34 | ... | 0·36 | 196·19 |
| 1876 | ... | ... | ... | ... | ... | 14·05 | 84·73 | 46·70 | 17·58 | 0·04 | ... | ... | 163·10 |
| 1877 | ... | ... | ... | ... | 0·14 | 18·67 | 32·03 | 26·84 | 12·46 | 4·08 | 0·12 | ... | 94·34 |
| 1878 | ... | ... | ... | ... | ... | 12·60 | 52·43 | 60·89 | 41·00 | 9·34 | 0·65 | ... | 176·91 |
| 1879 | ... | ... | ... | ... | 2·24 | 41·66 | 25·05 | 84·78 | 12·47 | 2·40 | 0·50 | ... | 172·10 |
| 1880 | ... | 0·02 | ... | 0·01 | 0·14 | 26·41 | 61·86 | 21·47 | 31·11 | 4·68 | 0·36 | ... | 146·06 |
| 1881 | ... | ... | ... | ... | 0·04 | 17·06 | 69·35 | 41·75 | 13·14 | 6·46 | 0·06 | ... | 147·86 |
| 1882 | ... | ... | ... | ... | 0·85 | 54·18 | 91·73 | 22·06 | 19·43 | 2 90 | 0·55 | 0·13 | 191·83 |
| 1883 | 0·27 | ... | ... | ... | 1·19 | 28·12 | 75·95 | 21·35 | 44 21 | 7·74 | 0·05 | ... | 178·88 |
| Mean | 0·06 | 0·02 | 0·15 | 0·02 | 0·51 | 29·68 | 64·16 | 41·47 | 24·33 | 4·43 | 0·24 | 0·06 | 165·13 |
| 1884 | ... | ... | ... | 0·85 | ... | 14·01 | 67·85 | 35·33 | 47·47 | 6·37 | ... | 1·95 | 173·83 |
| 1885 | ... | ... | 0·11 | 0·47 | ... | 23·17 | 70·66 | 40·87 | 9·68 | 3·96 | 1·35 | ... | 150·27 |
| 1886 | ... | ... | ... | ... | 3·24 | 30·77 | 69·31 | 34·06 | 8·64 | 7·32 | 1·51 | 0·49 | 155·34 |
| Mean | 0·05 | 0·02 | 0·12 | 0·11 | 0·64 | 28·06 | 65·34 | 40·38 | 23·78 | 4·76 | 0·40 | 0·24 | 163·90 |

No. 287. MAHABLESHWAR.

Latitude N. 17° 55′. Longitude E. 73° 43′. Elevation 4,540 feet.

Administration: BOMBAY. Rainfall Province No. XVII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1820 | ... | ... | ... | ... | ... | 53·60 | 43·60 | 61·62 | 37·57 | ... | ... | ... | 196·39 |
| 1821 to 1841 | Not on record. | | | | | | | | | | | | |
| 1842 | ? | ? | ? | ? | ? | 37·86 | 117·76 | 77·75 | 56·00 | ? | ? | ? | ? |
| 1843 | Not on record. | | | | | | | | | | | | |

MAHABLESHWAR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ... | 0·14 | ... | ... | ... | 47·89 | 114·78 | 74·65 | 21·81 | 2·88 | ... | 0·17 | 262·32 |
| 1845 | 1·96 | ... | 7·64 | 0·06 | 0·13 | 45·69 | 92·06 | 74·49 | 24·59 | 3·27 | ... | 0·04 | 249·93 |
| 1846 | ... | 0·09 | ... | ... | 3·81 | 69·73 | 119·52 | 50·07 | 41·10 | 2·45 | 1·20 | 0·32 | 288·29 |
| 1847 | ... | ... | 1·00 | 11·48 | 6·84 | 41·80 | 56·61 | 64·65 | 25·94 | 3·30 | 7·15 | ... | 218·77 |
| 1848 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | ... | ... | ... | ... | ... | 31·76 | 138·57 | 110·40 | 24·79 | 6·85 | ... | ... | 312·37 |
| 1862 | 0·40 | ... | ... | 0·87 | 0·52 | 42·32 | 70·79 | 65·76 | 46·91 | 13·38 | 2·90 | ... | 243·85 |
| 1863 | 0·14 | ... | 0·99 | 2·34 | 0·11 | 78·35 | 102·99 | 73·32 | 17·04 | 6·05 | ... | ... | 281·33 |
| 1864 | ... | ... | ... | ... | ... | 29·63 | 137·91 | 66·00 | 22·41 | ... | 1·59 | ... | 257·54 |
| 1865 | ... | ... | ... | ... | ... | 23·05 | 87·24 | 120·03 | 20·67 | 6·11 | 0·38 | ... | 257·48 |
| 1866 | ... | ... | ... | ... | ... | 71·43 | 91·21 | 89·04 | 19·76 | 8·20 | ... | ... | 279·64 |
| 1867 | ... | ... | ... | ... | ... | 36·68 | 61·48 | 82·17 | 24·08 | 7·76 | 1·58 | ... | 213·75 |
| 1868 | 0·01 | ... | 0·06 | ... | 0·72 | 60·80 | 76·08 | 81·90 | 14·41 | 1·48 | 0·15 | ... | 235·61 |
| 1869 | ... | ... | 0·02 | ... | 1·45 | 19·74 | 68·84 | 34·88 | 42·56 | 5·68 | 2·00 | 0·91 | 176·08 |
| 1870 | 0·12 | ... | 0·18 | 0·10 | 1·10 | 42·10 | 115·44 | 46·71 | 38·77 | 12·80 | 0·07 | ... | 257·39 |
| 1871 | 7·70 | ... | ... | 2·12 | 3·63 | 43·37 | 70·06 | 38·53 | 20·18 | 6·55 | 1·85 | 0·08 | 194·07 |
| 1872 | ... | ... | ... | 0·58 | 1·49 | 48·20 | 121·80 | 60·09 | 30·78 | 1·03 | 0·15 | 4·72 | 268·84 |
| 1873 | ... | 0·34 | 0·07 | 0·73 | 2·70 | 38·11 | 130·00 | 52·16 | 44·87 | 1·29 | 0·77 | 0·04 | 271·08 |
| 1874 | ... | 0·54 | ... | 0·29 | 1·95 | 92·72 | 120·78 | 69·57 | 17·35 | 4·05 | 0·60 | 0·55 | 308·40 |
| 1875 | 0·32 | 0·05 | 0·26 | 2·40 | 1·18 | 46·00 | 141·53 | 67·57 | 76·41 | 4·06 | ... | 0·35 | 340·13 |
| 1876 | ... | ... | 0·10 | 0·18 | ... | 22·44 | 140·50 | 67·74 | 12·22 | ... | ... | ... | 243·18 |
| 1877 | ... | 0·31 | 0·04 | ... | 1·91 | 42·35 | 46·53 | 40·46 | 25·54 | 10·19 | 0·40 | ... | 167·73 |
| 1878 | ... | ... | ... | 1·80 | 0·15 | 26·89 | 82·95 | 83·00 | 49·66 | 9·21 | ? | ... | 253·66? |
| 1879 | ... | 0·02 | ... | ... | 7·72 | 62·62 | 42·50 | 136·35 | 22·84 | 4·35 | 1·78 | ... | 278·18 |
| 1880 | ... | ... | 0·02 | 0·09 | 0·12 | 43·32 | 78·57 | 33·94 | 44·00 | 5·62 | 2·06 | ... | 207·74 |
| 1881 | ... | ... | ... | 0·76 | 0 02 | 25·91 | 116·71 | 82·24 | 28·00 | 6·82 | 0·67 | ... | 261·13 |
| 1882 | 0·07 | ... | 0·55 | 0·60 | 0·16 | 110·54 | 181·74 | 37·10 | 39·19 | 2·73 | 1·73 | 0·08 | 374·49 |
| 1883 | 0·57 | ... | ... | 0·17 | 0·21 | 52·84 | 124·17 | 36·72 | 70·64 | 10·78 | 0·80 | ... | 296·90 |
| Mean | 0·40 | 0·05 | 0·39 | 0·88 | 1·28 | 47·85 | 99·75 | 68·24 | 33·11 | 5·25 | 1·03 | 0·26 | 258·49 |
| 1884 | 0·33 | ... | ... | 1·32 | 0·19 | 30·57 | 148·66 | 78·93 | 56·05 | 9·06 | 0·40 | 3·97 | 329·48 |
| 1885 | ... | ... | 0·27 | 0·80 | 2·50 | 44·22 | 116·43 | 74·21 | 21·00 | 10·67 | 1·96 | 0·62 | 272·68 |
| 1886 | ... | ... | ... | 0·30 | 4·95 | 52·39 | 110·91 | 63·95 | 15·23 | 11·86 | 2·49 | 1·08 | 263·16 |
| Mean | 0·37 | 0·05 | 0·36 | 0·87 | 1·41 | 47·34 | 102·15 | 68·63 | 32·89 | 5·76 | 1·09 | 0·42 | 261·34 |

No. 288. RATNAGIRI.

Latitude N. 17° 6′. Longitude E. 73° 23′. Elevation 110 feet.

Administration: BOMBAY. Rainfall Province No. XVII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ? | ? | ? | ? | ? | 19·80 | 33·55 | 17·03 | 10·70 | 6·69 | ? | ? | ? |
| 1845 | ? | ? | ? | ? | ? | 29·33 | 29·83 | 11·35 | 10·95 | 6·92 | ? | ? | ? |
| 1846 | ? | ? | ? | ? | ? | 59·20 | 51·72 | 13·27 | 16·95 | 4·36 | ? | ? | ? |

RATNAGIRI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1847 | P | P | P | P | 5·79 | 58·00 | 28·81 | 21·44 | 6·00 | 3·61 | 9·97 | P | P |
| 1848 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | P | P | P | P | P | 28·95 | 37·58 | 39·27 | 16·29 | 0·53 | ... | ... | P |
| 1862 | P | P | P | P | P | 36·39 | 17·73 | 24·26 | 23·41 | 4·22 | 0·09 | ... | P |
| 1863 | P | P | P | P | P | 31·54 | 45·08 | 9·46 | 8·25 | 3·28 | ... | ... | P |
| 1864 | P | P | P | P | P | 39·55 | 38·23 | 9·65 | 13·25 | 0·26 | 0·94 | ... | P |
| 1865 | P | P | P | 2·67 | 2·24 | 24·80 | 19·89 | 55·98 | 3·42 | 4·70 | 0·21 | ... | P |
| 1866 | P | P | P | P | P | 25·27 | 48·78 | 17·05 | 11·81 | 5·27 | 0·03 | ... | P |
| 1867 | P | P | P | P | 0·04 | 29·05 | 32·29 | 17·22 | 9·71 | 2·49 | 3·13 | P | P |
| 1868 | P | P | P | P | 0·12 | 29·43 | 42·02 | 12·89 | 5·26 | 0·25 | 0·15 | ... | P |
| 1869 | ... | ... | ... | ... | 1·73 | 24·76 | 12·44 | 35·60 | 24·70 | 3·86 | 0·06 | 0·35 | 103·50 |
| 1870 | ... | ... | ... | ... | 0·08 | 28·75 | 28·33 | 14·17 | 18·95 | 4·97 | 0·02 | P | 95·27 P |
| 1871 | 15·77 | ... | ... | 0·05 | 1·87 | 19·50 | 18·74 | 10·32 | 7·77 | 0·41 | 0·78 | 0·09 | 75·30 |
| 1872 | ... | ... | ... | 0·06 | 0·59 | 27·35 | 35·54 | 11·17 | 10·35 | 0·48 | ... | 0·33 | 85·87 |
| 1873 | ... | 0·12 | ... | ... | 0·42 | 30·20 | 30·11 | 11·15 | 10·94 | 0·70 | ... | ... | 83·64 |
| 1874 | ... | 0·11 | ... | ... | 2·79 | 28·39 | 60·17 | 15·65 | 13·32 | 1·90 | 0·80 | ... | 123·13 |
| 1875 | ... | ... | ... | ... | 0·07 | 39·61 | 44·92 | 15·80 | 18·97 | 0·06 | ... | 0·34 | 119·07 |
| 1876 | ... | ... | ... | ... | ... | 20·85 | 23·70 | 6·98 | 6·81 | ... | ... | ... | 58·34 |
| 1877 | ... | ... | ... | ... | ... | 45·00 | 9·92 | 11·68 | 11·74 | 6·18 | 0·63 | ... | 85·15 |
| 1878 | ... | ... | ... | ... | ... | 35·18 | 42·16 | 48·45 | 27·29 | 9·20 | 0·55 | ... | 162·83 |
| 1879 | ... | ... | ... | ... | 11·73 | 22·85 | 14·87 | 39·21 | 5·70 | 2·84 | 0·32 | ... | 97·52 |
| 1880 | ... | ... | 0·01 | 0·01 | 0·01 | 32·15 | 37·97 | 11·31 | 16·16 | 2·34 | 1·00 | ... | 100·96 |
| 1881 | ... | ... | 0·01 | ... | 0·53 | 18·59 | 28·46 | 24·84 | 6·45 | 2·00 | 1·18 | ... | 82·06 |
| 1882 | ... | ... | 0·03 | ... | 0·09 | 42·90 | 42·77 | 7·89 | 20·30 | 6·03 | ... | ... | 120·01 |
| 1883 | 0·91 | ... | ... | ... | 0·15 | 32·61 | 39·87 | 16·94 | 13·74 | 6·38 | 0·11 | ... | 110·71 |
| Mean | 1·11 | 0·02 | ... | 0·17 | 1·49 | 31·85 | 33·17 | 19·60 | 12·93 | 3·33 | 0·83 | 0·05 | 104·55 |
| 1884 | 0·47 | ... | ... | 0·03 | ... | 16·74 | 28·99 | 33·98 | 18·93 | 7·84 | ... | 1·05 | 108·03 |
| 1885 | ... | ... | ... | 0·08 | 0·23 | 20·22 | 30·46 | 24·38 | 13·23 | 4·32 | 0·15 | 0·11 | 93·18 |
| 1886 | ... | ... | ... | 0·05 | 1·75 | 38·19 | 53·66 | 23·86 | 3·41 | 4·91 | 0·22 | 0·05 | 126·10 |
| Mean | 0·95 | 0·01 | ... | 0·16 | 1·37 | 31·17 | 33·62 | 20·39 | 12·83 | 3·57 | 0·75 | 0·10 | 104·92 |

No. 289. BAURA.

Latitude N. 16° 33′. Longitude E. 73° 51′. Elevation 2,800 feet.

Administration: BOMBAY. Rainfall Province No. XVII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | P | P | P | P | P | 65·80 | 72·00 | 42·00 | 66·72 | P | P | P | P |
| 1863 | P | P | P | P | P | 45·60 | 115·15 | 51·45 | 26·95 | P | P | P | P |
| 1864 to 1873 | Not on record. | | | | | | | | | | | | |
| 1874 | ... | ... | ... | ... | ... | 71·95 | 116·60 | 66·20 | 39·06 | 10·11 | 3·10 | 0·16 | 307·18 |

BAURA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | ... | ... | 0·19 | 2·66 | ... | 60·71 | 147·97 | 69·86 | 40·03 | 1·50 | 0·80 | 0·26 | 323·98 |
| 1876 | ... | ... | ... | 0·16 | ... | 28·15 | 103·14 | 47·35 | 21·10 | ... | 0·30 | ... | 200·20 |
| 1877 | ... | 0·13 | ... | ... | 2·08 | 56·60 | 29·06 | 58·58 | 26·00 | 18·50 | 1·80 | 0·93 | 193·68 |
| 1878 | ... | ... | ... | 3·15 | 0·38 | 39·85 | 62·10 | 96·97 | 58·50 | 15·95 | 8·60 | ... | 285·50 |
| 1879 | ... | ... | ... | 0·38 | 18·92 | 73·36 | 40·83 | 94·20 | 14·15 | 10·95 | 3·10 | ... | 255·89 |
| 1880 | ... | ... | ... | 0·19 | ... | 44·34 | 79·30 | 40·60 | 34·15 | 10·22 | 1·75 | ... | 210·55 |
| 1881 | ... | ... | ... | ... | 0·10 | 30·75 | 84·48 | 63·00 | 24·60 | 13·00 | 2·42 | ... | 218·35 |
| 1882 | 1·20 | ... | ... | ... | 3·50 | 82·24 | 103·94 | 38·17 | 50·16 | 7·12 | 1·00 | ... | 287·33 |
| 1883 | 0·80 | ... | ... | ... | ... | 60·65 | 118·76 | 37·40 | 35·30 | 10·58 | 0·37 | ... | 263·86 |
| Mean | 0·20 | 0·01 | 0·02 | 0·65 | 2·50 | 55·00 | 89·44 | 58·82 | 36·39 | 9·79 | 2·32 | 0·14 | 255·28 |
| 1884 | ... | ... | ... | 0·07 | ... | 26·62 | 75·64 | 63·81 | 47·52 | 10·06 | ... | 4·79 | 228·51 |
| 1885 | ... | ... | 0·32 | ... | 1·71 | 35·71 | 84·71 | 68·43 | 23·20 | 13·74 | 1·45 | 0·17 | 229·44 |
| 1886 | ... | ... | ... | 0·05 | 1·80 | 73·04 | 92·37 | 59·56 | 11·17 | 22·21 | 0·52 | 0·50 | 261·22 |
| Mean | 0·15 | 0·01 | 0·04 | 0·51 | 2·19 | 53·02 | 88·40 | 59·84 | 34·57 | 11·07 | 1·94 | 0·52 | 252·26 |

No. 290. VINGURLA.

Latitude N. 15° 51′. Longitude E. 73° 39′. Elevation 100 feet.

Administration: BOMBAY. Rainfall Province No. XVII.

| Year. | Inches of Rainfall. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | ? | ? | ? | ? | ? | 47·89 | 22·70 | 41·74 | 28·09 | ? | ? | ? | ? |
| 1863 | ? | ? | ? | ? | ? | 51·39 | 59·94 | 19·50 | 10·49 | ? | ? | ? | ? |
| 1864 | ? | ? | ? | ? | ? | 44·53 | 24·96 | 15·08 | 11·21 | ? | ? | ? | ? |
| 1865 | ? | ? | ? | ? | ? | 23·43 | 26·83 | 46·58 | 3·56 | ? | ? | ? | ? |
| 1866 | ? | ? | ? | ? | ? | 30·01 | 50·00 | 22·80 | 7·39 | 5·39 | ? | ? | ? |
| 1867 | ? | ? | ? | ? | 0·22 | 43·04 | 30·27 | 20·63 | 7·98 | 4·33 | 0·16 | ? | ? |
| 1868 | ? | ? | ? | ? | 4·40 | 43·81 | 38·53 | 16·96 | 4·79 | 0·17 | 0·77 | ... | ? |
| 1869 | ... | ... | ... | 0·08 | 0·20 | 29·68 | 23·50 | 33·42 | 16·27 | 1·98 | ... | 0·14 | 105·27 |
| 1870 | ... | ... | ... | ... | ... | 25·39 | 39·15 | 18·93 | 11·87 | 6·72 | 0·81 | ? | 102·87 ? |
| 1871 | 2·79 | ... | ... | 0·43 | 2·22 | 23·11 | 30·08 | 11·60 | 6·16 | 3·39 | 1·70 | ... | 81·48 |
| 1872 | ... | ... | ... | 0·06 | 2·86 | 39·26 | 47·93 | 17·49 | 13·10 | 0·65 | ... | 0·21 | 121·56 |
| 1873 | ... | ... | ... | ... | 1·24 | 38·04 | 39·99 | 9·76 | 8·95 | 2·44 | ... | ... | 100·42 |
| 1874 | ... | ... | ... | ... | 8·89 | 42·29 | 80·30 | 24·24 | 20·36 | 3·61 | 1·02 | 0·44 | 181·15 |
| 1875 | ... | ... | ... | ... | 0·12 | 34·53 | 35·23 | 16·92 | 11·56 | 0·01 | ... | ... | 98·37 |
| 1876 | ... | ... | 0·61 | 0·16 | ... | 20·67 | 24·77 | 7·01 | 5·65 | ... | ... | ... | 58·87 |
| 1877 | ... | ... | ... | ... | ... | 23·06 | 6·40 | 11·93 | 8·98 | 12·37 | 0·10 | ... | 62·84 |
| 1878 | ... | ... | ... | 0·30 | 0·10 | 36·50 | 36·54 | 46·69 | 31·59 | 8·72 | 4·30 | ... | 164·74 |
| 1879 | ... | ... | 0·23 | 0·05 | 6·58 | 33·60 | 20·94 | 39·55 | 3·52 | 3·07 | 1·49 | ... | 109·03 |
| 1880 | ... | ... | 6·14 | ... | ... | 34·08 | 28·22 | 8·04 | 8·84 | 3·97 | ... | ... | 83·29 |
| 1881 | ... | ... | ... | ... | 0·57 | 21·10 | 30·16 | 21·95 | 8·36 | 3·54 | 4·33 | ... | 90·01 |
| 1882 | ... | ... | 0·05 | ... | 2·00 | 32·06 | 36·72 | 10·69 | 14·88 | 2·58 | ... | ... | 98·98 |
| 1883 | ... | ... | ... | ... | 3·26 | 46·35 | 48·51 | 16·19 | 14·98 | 7·52 | 1·28 | ... | 138·09 |
| Mean | 0·19 | ... | 0·07 | 0·07 | 1·92 | 34·74 | 35·53 | 21·71 | 11·75 | 3·91 | 0·95 | 0·05 | 110·89 |

VINGURLA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 0·50 | ... | ... | ... | ... | 16·72 | 27·51 | 31·83 | 17·75 | 2·20 | 0·09 | 3·50 | 100·10 |
| 1885 | ... | ... | ... | ... | 0·15 | 23·29 | 29·84 | 18·89 | 10·98 | 7·72 | 0·86 | ... | 91·73 |
| 1886 | ... | ... | ... | ... | 3·65 | 30·43 | 51·58 | 16·09 | 3·20 | 11·98 | 0·37 | 0·48 | 117·78 |
| Mean | 0·18 | ... | 0·06 | 0·06 | 1·82 | 33·37 | 35·62 | 21·78 | 11·62 | 4·40 | 0·86 | 0·27 | 110·04 |

No. 291. GOA.

Latitude N. 15° 21′. Longitude E. 73° 56′. Elevation 23 feet.

Administration: PORTUGUESE. Rainfall Province No. XVII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1860 | ? | ? | ? | ? | 0·47 | 16·95 | 25·71 | 22·04 | 14·62 | 9·16 | ... | ... | ? |
| 1861 | ... | ... | ... | ... | 1·01 | 49·79 | 48·06 | 24·96 | 8·25 | 1·51 | ... | ... | 132·68 |
| 1862 | ... | ... | ... | ... | ... | 41·56 | 15·90 | 32·28 | 18·05 | 2·62 | 1·47 | ... | 111·88 |
| 1863 | ... | ... | 0·63 | 0·88 | 0·21 | 35·30 | 50·48 | 10·11 | 5·07 | 2·47 | ... | 0·15 | 105·30 |
| 1864 | ... | ... | ... | 0·03 | ... | 41·84 | 23·46 | 11·06 | 12·95 | 0·80 | ... | ... | 90·14 |
| 1865 | ... | ... | ... | 0·30 | 1·41 | 23·56 | 21·00 | 43·74 | 2·00 | 1·43 | 5·78 | ... | 99·22 |
| 1866 | ... | ... | ... | ... | ... | 24·45 | 51·82 | 24·75 | 10·49 | 7·29 | ... | ... | 118·80 |
| 1867 | ... | ... | ... | ... | ... | 49·59 | 26·06 | 22·76 | 9·96 | 2·58 | 0·38 | ... | 111·33 |
| 1868 | ... | ... | ... | ... | 1·49 | 39·12 | 34·56 | 17·50 | 6·02 | 1·10 | 0·42 | ... | 100·21 |
| 1869 | ... | ... | ... | ... | ... | 38·85 | 24·87 | 33·49 | 20·36 | 3·44 | 0·38 | ... | 121·39 |
| 1870 | ... | ... | ... | ... | ... | 22·76 | 31·32 | 13·76 | 7·49 | 13·60 | 1·18 | ... | 90·11 |
| 1871 | 2·70 | ... | ... | ... | 3·49 | 24·62 | 31·23 | 10·29 | 3·58 | 4·36 | 0·79 | 0·30 | 81·36 |
| 1872 | ... | ... | ... | 0·44 | 3·55 | 43·22 | 50·37 | 19·59 | 9·22 | 0·75 | 0·79 | 0·30 | 128·23 |
| 1873 | ... | ... | ... | ... | 1·02 | 37·18 | 28·88 | 6·12 | 7·36 | 6·27 | 0·29 | ... | 87·12 |
| 1874 | ... | ... | ... | ... | 0·63 | 35·94 | 61·02 | 16·93 | 11·80 | 1·47 | 0·06 | 0·19 | 128·04 |
| 1875 | ... | ... | 0·04 | 0·09 | 0·37 | 42·71 | 38·29 | 21·02 | 8·76 | 0·36 | 0·58 | 0·08 | 112·30 |
| 1876 | ... | ... | ... | 0·07 | 0·03 | 29·26 | 30·23 | 7·18 | 2·97 | ... | ... | ... | 69·74 |
| 1877 | ... | ... | ... | ... | ... | 19·46 | 9·70 | 17·53 | 12·23 | 11·18 | 0·04 | 0·88 | 71·02 |
| 1878 | ... | ... | ... | 0·15 | 0·18 | 33·57 | 40·92 | 43·28 | 39·09 | 8·73 | 9·16 | ... | 175·08 |
| 1879 | ... | ... | ... | ... | 15·06 | 21·10 | 19·60 | 34·54 | 6·88 | 2·84 | ... | ... | 100·02 |
| 1880 | ... | ... | ... | ... | 0·20 | 28·20 | 35·18 | 6·83 | 12·43 | 2·54 | ... | ... | 85·38 |
| 1881 | ... | ... | ... | ... | ... | 19·51 | 28·74 | 11·30 | 6·08 | 2·95 | 4·30 | ... | 72·88 |
| 1882 | 0·54 | ... | ... | ... | 2·06 | 40·77 | 38·97 | 12·97 | 13·34 | 5·30 | ... | ... | 113·95 |
| 1883 | ... | ... | ... | ... | 0·39 | 36·77 | 43·83 | 12·83 | 12·08 | 4·87 | 2·02 | ... | 112·79 |
| Mean | 0·14 | ... | 0·03 | 0·09 | 1·32 | 33·17 | 33·76 | 19·83 | 10·88 | 4·07 | 1·15 | 0·08 | 104·52 |
| 1884 | 0·15 | ... | ... | ... | 0·17 | 14·58 | 29·97 | 27·29 | 14·68 | 5·13 | ... | 1·34 | 93·31 |
| 1885 | ... | ... | ... | 0·42 | 1·01 | 24·95 | 29·99 | 18·26 | 8·96 | 5·01 | 0·34 | ... | 88·94 |
| 1886 | ... | ... | ... | ... | 9·43 | 23·77 | 50·71 | 14·78 | 1·84 | 10·62 | 0·93 | ... | 112·08 |
| Mean | 0·13 | ... | 0·03 | 0·09 | 1·56 | 31·33 | 34·11 | 19·86 | 0·61 | 4·38 | 1·07 | 0·12 | 103·79 |

No. 292. KARWAR.

Latitude N. 14° 50'. Longitude E. 74° 11'. Elevation 44 feet.

Administration: BOMBAY. Rainfall Province No. XVII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | P | P | P | P | P | P | 46·52 | 26·02 | 6·57 | 1·07 | ... | ... | P |
| 1862 | 0·04 | ... | ... | 0·01 | 0·01 | 45·02 | 23·56 | 43·06 | 25·52 | 4·55 | 3·01 | ... | 144·78 |
| 1863 | ... | ... | 0·03 | 3·05 | ... | 46·03 | 64·01 | 12·56 | 4·53 | 0·02 | ... | ... | 130·23 |
| 1864 | ... | ... | ... | ... | ... | 48·01 | 21·70 | 10·67 | 8·74 | 0·80 | ... | ... | 89·92 |
| 1865 | ... | ... | ... | ... | 4·95 | 30·90 | 19·99 | 39·85 | 4·60 | 0·60 | 5·60 | ... | 106·49 |
| 1866 | ... | ... | ... | ... | ... | 24·31 | 45·89 | 18·78 | 6·37 | 11·14 | ... | ... | 106·49 |
| 1867 | ... | ... | ... | ... | 0·04 | 45·16 | 34·77 | 23·27 | 11·48 | 7·80 | 0·19 | ... | 122·71 |
| 1868 | ... | ... | ... | ... | 4·36 | 32·99 | 42·20 | 17·11 | 5·30 | 0·10 | 0·40 | ... | 102·46 |
| 1869 | ... | ... | ... | ... | 2·52 | 35·01 | 52·07 | 19·14 | 25·70 | 4·41 | 0·26 | 0·25 | 139·36 |
| 1870 | ... | ... | ... | 0·65 | 1·30 | 25·31 | 27·53 | 12·81 | 18·51 | 11·05 | 0·39 | ... | 97·55 |
| 1871 | 2·72 | ... | ... | 1·03 | 8·04 | 17·16 | 29·81 | 9·36 | 7·18 | 3·25 | 3·04 | ... | 81·59 |
| 1872 | ... | ... | ... | ... | 4·35 | 48·87 | 51·26 | 20·69 | 5·99 | 2·84 | ... | 1·50 | 135·50 |
| 1873 | ... | ... | ... | ... | 0·15 | 31·81 | 23·41 | 11·28 | 8·16 | 1·79 | ... | ... | 76·60 |
| 1874 | ... | ... | ... | ... | 10·52 | 34·12 | 63·12 | 17·92 | 20·59 | 3·10 | 0·05 | ... | 149·42 |
| 1875 | ... | ... | 1·40 | 0·16 | 0·89 | 31·89 | 40·85 | 23·41 | 10·94 | 0·80 | ... | ... | 110·34 |
| 1876 | ... | ... | ... | ... | ... | 32·55 | 42·67 | 8·53 | 4·34 | ... | ... | ... | 88·09 |
| 1877 | ... | ... | ... | ... | 1·05 | 23·98 | 10·89 | 21·90 | 11·51 | 16·02 | 0·45 | 1·26 | 87·06 |
| 1878 | ... | ... | ... | ... | 0·48 | 42·04 | 35·84 | 61·48 | 39·75 | 5·48 | 8·26 | ... | 193·33 |
| 1879 | ... | ... | ... | 0·21 | 18·77 | 30·15 | 25·96 | 34·73 | 6·53 | 11·92 | 2·03 | 0·02 | 130·32 |
| 1880 | ... | ... | ... | 0·05 | 1·33 | 31·87 | 33·72 | 9·55 | 13·02 | 5·13 | 1·87 | ... | 96·54 |
| 1881 | ... | ... | ... | 0·02 | 3·15 | 18·45 | 27·60 | 24·36 | 10·43 | 3·47 | 9·15 | ... | 96·63 |
| 1882 | 1·07 | ... | ... | 0·02 | 1·65 | 35·01 | 41·85 | 15·54 | 12·47 | 5·30 | 0·84 | ... | 113·75 |
| 1883 | ... | ... | ... | 2·21 | 2·53 | 49·28 | 47·50 | 17·82 | 18·74 | 9·35 | 3·91 | 0·05 | 151·39 |
| Mean | 0·17 | ... | 0·07 | 0·34 | 3·00 | 34·54 | 37·07 | 21·73 | 12·48 | 4·78 | 1·72 | 0·13 | 116·03 |
| 1884 | ... | ... | ... | 0·33 | ... | 21·71 | 23·69 | 30·49 | 12·86 | 4·03 | 0·49 | 1·22 | 94·82 |
| 1885 | ... | ... | ... | ... | 0·98 | 32·86 | 40·85 | 18·56 | 8·18 | 10·99 | 2·16 | ... | 114·58 |
| 1886 | ... | ... | ... | ... | 5·56 | 48·46 | 61·92 | 16·24 | 3·62 | 11·42 | 0·79 | ... | 148·01 |
| Mean | 0·15 | ... | 0·06 | 0·31 | 2·91 | 34·52 | 37·66 | 21·74 | 11·99 | 5·25 | 1·65 | 0·17 | 116·41 |

No. 293. HONAWAR.

Latitude N. 14° 17'. Longitude E. 74° 29'. Elevation 50 feet.

Administration: BOMBAY. Rainfall Province No. XVII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | ... | ... | ... | ... | 6·06 | 60·51 | 47·02 | 36·55 | 4·56 | 1·04 | ... | ... | 155·74 |
| 1862 | ... | ... | ... | 0·53 | 1·01 | 32·54 | 18·55 | 47·05 | 26·05 | 9·02 | 2·50 | 1·02 | 138·27 |
| 1863 | ... | ... | ... | 2·55 | 1·07 | 45·01 | 66·55 | 34·51 | 11·07 | 4·02 | ... | 0·51 | 165·29 |
| 1864 | P | P | P | P | P | 56·76 | 42·99 | 11·48 | 13·04 | P | P | P | P |
| 1865 | P | P | P | P | P | 40·36 | 30·17 | 49·76 | 6·68 | P | P | P | P |
| 1866 | Not on record. | | | | | | | | | | | | |

HONAWAR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ... | ... | ... | ... | ... | 49·17 | 37·18 | 25·19 | 57·48 | 5·33 | 0·46 | ... | 174·81 |
| 1868 | ... | ... | ... | 0·29 | 3·07 | 45·35 | 51·36 | 34·48 | 5·78 | 2·15 | 1·39 | ... | 143·87 |
| 1869 | ... | ... | ... | ... | 0·28 | 45·76 | 26·75 | 24·00 | 24·22 | 4·98 | 0·03 | 0·50 | 126·52 |
| 1870 | ... | ... | ... | ... | 1·03 | 43·44 | 52·37 | 18·25 | 10·96 | 12·77 | 0·64 | ... | 139·46 |
| 1871 | 4·13 | ... | 2·60 | 0·80 | 12·98 | 21·51 | 54·14 | 14·74 | 8·15 | 5·03 | 3·90 | ... | 127·98 |
| 1872 | ... | ... | ... | 0·20 | 5·78 | 56·20 | 60·13 | 38·32 | 15·97 | 1·80 | ... | ... | 178·40 |
| 1873 | ... | ... | ... | ... | 1·49 | 37·84 | 30·60 | 14·32 | 9·42 | 6·17 | ... | ... | 99·84 |
| 1874 | ... | ... | ... | 0·32 | 13·60 | 29·13 | 58·82 | 28·63 | 22·50 | 4·60 | 0·33 | 0·36 | 158·29 |
| 1875 | ... | ... | ... | ... | 0·08 | 40·28 | 46·64 | 27·76 | 13·08 | 4·43 | 1·20 | 0·24 | 133·71 |
| 1876 | ... | ... | 0·30 | 0·13 | 0·25 | 36·65 | 47·56 | 13·63 | 7·67 | ... | ... | ... | 106·19 |
| 1877 | ... | ... | ... | 0·04 | 0·03 | 27·82 | 17·01 | 24·53 | 9·75 | 11·69 | 0·41 | 0·07 | 91·35 |
| 1878 | ... | ... | ... | 0·21 | 0·13 | 38·76 | 42·20 | 55·50 | 40·80 | 6·98 | 0·76 | ... | 185·34 |
| 1879 | 0·04 | ... | 0·09 | ... | 13·84 | 45·25 | 27·98 | 37·58 | 6·38 | 11·62 | 0·72 | ... | 143·50 |
| 1880 | ... | ... | ... | 0·35 | 1·29 | 38·14 | 37·34 | 12·81 | 13·03 | 3·05 | 1·39 | ... | 107·40 |
| 1881 | ... | ... | 0·23 | ... | 3·97 | 23·34 | 22·60 | 21·15 | 11·71 | 2·34 | 3·91 | ... | 89·25 |
| 1882 | 0·81 | ... | ... | ... | 5·19 | 37·74 | 71·07 | 14·72 | 14·89 | 8·74 | 0·36 | ... | 153·52 |
| 1883 | 0·50 | ... | ... | 0·57 | 1·26 | 43·45 | 48·80 | 19·06 | 17·17 | 10·02 | 4·10 | 0·10 | 145·03 |
| Mean | 0·27 | ... | 0·16 | 0·30 | 3·62 | 40·68 | 42·63 | 27·96 | 15·93 | 5·79 | 1·10 | 0·14 | 138·08 |
| 1884 | ... | ... | ... | 0·04 | ... | 27·37 | 29·86 | 37·89 | 16·76 | 6·55 | 0·38 | 0·90 | 119·75 |
| 1885 | ... | ... | ... | ... | 1·14 | 32·78 | 45·32 | 24·96 | 11·59 | 7·68 | 0·54 | 0·47 | 124·48 |
| 1886 | ... | ... | ... | ... | 3·00 | 39·20 | 62·15 | 18·09 | 4·77 | 11·77 | 0·62 | ... | 139·60 |
| Mean | 0·24 | ... | 0·14 | 0·26 | 3·33 | 39·77 | 43·01 | 27·40 | 15·34 | 6·16 | 1·03 | 0·18 | 136·86 |

No. 294. DHULIA.

Latitude N. 20° 54′. Longitude E. 74° 50′. Elevation 1,000 feet.

Administration: BOMBAY. Rainfall Province No. XIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | P | P | P | P | P | 11·97 | 4·18 | 8·35 | 2·08 | P | P | P | P |
| 1862 | P | P | P | P | P | 2·05 | 1·43 | 1·45 | 9·62 | P | P | P | P |
| 1863 | P | P | P | P | P | 4·17 | 2·02 | 1·77 | 2·77 | P | P | P | P |
| 1864 | P | P | P | P | P | 1·59 | 3·92 | 3·05 | 0·81 | ... | 0·52 | ... | P |
| 1865 | P | P | P | P | P | 3·39 | 1·76 | 7·98 | ... | 2·85 | P | P | P |
| 1866 | P | P | P | P | P | 1·32 | 6·39 | 4·31 | 0·53 | 0·75 | P | P | P |
| 1867 | P | P | P | P | P | 5·10 | 4·37 | 3·15 | 2·23 | 1·55 | P | P | P |
| 1868 | P | P | P | P | P | 2·15 | 3·64 | 2·48 | 0·52 | 0·37 | ... | ... | P |
| 1869 | ... | ... | ... | ... | 0·35 | 3·77 | 0·78 | 2·88 | 2·70 | 6·91 | 1·77 | 1·28 | 20·44 |
| 1870 | 0·60 | ... | ... | ... | 0·05 | 5·47 | 6·17 | 2·30 | 7·25 | 2·77 | ... | ... | 24·61 |
| 1871 | 3·00 | ... | ... | ... | P | 1·74 | 1·29 | 0·72 | 1·95 | 0·15 | 0·72 | ... | 9·57 |
| 1872 | ... | ... | ... | 0·35 | 0·10 | 4·72 | 9·43 | 0·85 | 8·15 | 0·29 | ... | ... | 23·89 |
| 1873 | ... | 0·30 | ... | ... | 1·34 | 6·72 | 4·24 | 4·67 | 8·04 | ... | 4·69 | ... | 30·00 |
| 1874 | ... | ... | ... | ... | ... | 9·18 | 10·20 | 1·14 | 3·14 | ... | ... | ... | 23·66 |
| 1875 | ... | ... | ... | ... | ... | 3·93 | 5·16 | 3·87 | 6·72 | ... | ... | ... | 19·68 |

DHULIA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | ... | ... | ... | 5·59 | 3·64 | 2·80 | 0·70 | ... | ... | ... | 12·73 |
| 1877 | 1·68 | 0·68 | ... | ... | ... | 3·46 | 2·69 | 10·22 | 1·99 | 1·40 | ... | 0·84 | 22·96 |
| 1878 | ... | ... | ... | ... | ... | 6·08 | 8·23 | 13·75 | 9·81 | 1·06 | ... | ... | 38·93 |
| 1879 | ... | ... | ... | ... | 0·77 | 7·01 | 3·02 | 3·86 | 3·72 | 1·99 | ... | ... | 20·37 |
| 1880 | ... | ... | ... | ... | 0·60 | 1·79 | 2·28 | 2·67 | 11·37 | 3·41 | 0·94 | ... | 23·06 |
| 1881 | ... | ... | ... | ... | 2·01 | 3·30 | 4·27 | 2·61 | 2·10 | 1·00 | 0·32 | 0·43 | 16·04 |
| 1882 | ... | ... | ... | ... | ... | 9·79 | 8·18 | 2·47 | 5·74 | 0·04 | 0·32 | ... | 26·54 |
| 1883 | 0·20 | ... | 0·02 | ... | ... | 5·21 | 8·39 | 6·44 | 8·18 | 8·74 | ... | ... | 37·18 |
| Mean | 0·37 | 0·07 | ... | 0·02 | 0·37 | 4·76 | 4·59 | 4·08 | 4·35 | 1·66 | 0·55 | 0·15 | 20·97 |
| 1884 | 0·65 | ... | 0·07 | ... | ... | 3·34 | 11·55 | 1·44 | 11·67 | 1·80 | ... | 3·18 | 33·70 |
| 1885 | ... | ... | ... | 0·15 | 0·37 | 0·25 | 3·06 | 4·75 | 2·60 | 6·80 | 0·16 | 0·92 | 19·26 |
| 1886 | ... | ... | ... | ... | 1·35 | 11·49 | 5·37 | 7·95 | 6·24 | 4·87 | ... | 1·10 | 33·37 |
| Mean | 0·34 | 0·05 | 0·01 | 0·03 | 0·42 | 4·79 | 4·83 | 3·96 | 4·64 | 2·03 | 0·47 | 0·39 | 21·96 |

No. 295. MALEGAON.

Latitude N. 20° 34′. Longitude E. 74° 22′. Elevation 1,430 feet.

Administration: BOMBAY. Rainfall Province No. XIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1861 | ? | ? | ? | ? | ? | 6·51 | 4·47 | 5·95 | 4·27 | ? | ? | ? | ? |
| 1862 | ? | ? | ? | ? | ? | 8·28 | 1·03 | 0·92 | 15·66 | ? | ? | ? | ? |
| 1863 | ? | ? | ? | ? | ? | 3·70 | 1·73 | 3·86 | 7·12 | ? | ? | ? | ? |
| 1864 | ? | ? | ? | ? | ? | 4·02 | 5·11 | 4·67 | 4·13 | ... | 0·18 | ? | ? |
| 1865 | ? | ? | ? | ? | ? | 1·27 | 3·25 | 6·84 | 1·97 | 3·33 | ? | ? | ? |
| 1866 | ? | ? | ? | ? | ? | 4·59 | 3·50 | 3·99 | 2·77 | 4·10 | ? | ? | ? |
| 1867 | ? | ? | ? | ? | ... | 3·23 | 4·47 | 2·47 | 5·85 | 3·58 | ... | ? | ? |
| 1868 | ? | ? | ? | ? | 0·05 | 2·49 | 1·69 | 2·63 | 2·71 | 1·15 | ... | ... | ? |
| 1869 | ? | ... | ... | ... | 0·45 | 6·49 | 2·01 | 8·91 | 6·43 | 3·80 | 1·16 | 2·22 | 31·47 ? |
| 1870 | ... | ... | ... | ... | 0·16 | 7·81 | 3·28 | 2·67 | 3·44 | 3·02 | 0·18 | ... | 20·56 |
| 1871 | 2·70 | ... | ... | 0·40 | 0·76 | 1·39 | 0·71 | 0·91 | 4·42 | 3·87 | 2·39 | ... | 17·55 |
| 1872 | ... | ... | ... | 2·85 | ... | 7·99 | 9·05 | 4·21 | 11·53 | ... | ... | 1·72 | 37·35 |
| 1873 | ... | 1·71 | ... | ... | 3·35 | 6·25 | 0·64 | 8·80 | 10·00 | 0·39 | 1·03 | ... | 32·17 |
| 1874 | ... | ... | ... | 0·28 | 1·23 | 8·23 | 4·79 | 1·16 | 4·60 | 0·34 | ... | ... | 20·63 |
| 1875 | ... | 0·41 | 0·23 | ... | 0·20 | 4·83 | 5·31 | 7·08 | 7·15 | 0·26 | ... | 0·30 | 25·77 |
| 1876 | ... | ... | ... | ... | ... | 8·22 | 2·51 | 3·99 | 1·01 | ... | ... | ... | 15·73 |
| 1877 | 0·64 | 0·30 | 0·05 | ... | 0·30 | 5·40 | 1·58 | 4·24 | 1·55 | 1·65 | ... | 1·11 | 16·82 |
| 1878 | ... | ... | ... | ... | ... | 3·62 | 12·95 | 6·30 | 9·81 | 2·76 | ... | ... | 35·44 |
| 1879 | ... | ... | ... | ... | 3·67 | 4·80 | 5·77 | 4·29 | 3·76 | 4·53 | ... | ... | 26·82 |
| 1880 | ... | ... | ... | ... | 0·35 | 2·35 | 3·15 | 1·16 | 6·57 | 1·50 | 1·36 | ... | 16·44 |
| 1881 | ... | 0·61 | ... | 0·01 | 1·26 | 3·07 | 2·32 | 2·83 | 6·78 | 0·78 | 0·30 | 0·43 | 18·39 |
| 1882 | ... | ... | ... | 0·04 | 0·59 | 11·43 | 5·93 | 1·38 | 15·48 | ... | 0·67 | ... | 35·52 |
| 1883 | 0·02 | ... | ... | ... | 0·26 | 5·12 | 9·36 | 10·71 | 5·13 | 7·52 | ... | ... | 38·12 |
| Mean | 0·24 | 0·20 | 0·02 | 0·24 | 0·74 | 5·26 | 4·11 | 4·35 | 6·18 | 2·13 | 0·40 | 0·36 | 24·23 |

MALEGAON—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 0·54 | ... | ... | 0·49 | 0·06 | 4·19 | 9·30 | 2·76 | 13·56 | 2·86 | ... | 4·68 | 38·44 |
| 1885 | ... | ... | ... | 0·15 | 0·43 | 0·62 | 1·57 | 3·93 | 4·11 | 6·79 | 1·07 | 0·27 | 18·94 |
| 1886 | ... | ... | ... | 0·03 | 1·07 | 7·20 | 3·27 | 4·75 | 5·06 | 7·63 | ... | 0·14 | 29·15 |
| Mean | **0·23** | **0·17** | **0·02** | **0·24** | **0·71** | **5·12** | **4·18** | **4·29** | **6·34** | **2·60** | **0·40** | **0·57** | **24·87** |

No. 296. NASIK.

Latitude N. 20° 0′. Longitude E. 73° 50′. Elevation 1,962 feet.

Administration: BOMBAY. Rainfall Province No. XIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | P | P | P | P | P | 12·94 | 6·59 | 2·88 | 2·69 | 0·70 | P | P | P |
| 1845 | P | P | P | P | P | 4·35 | 4·26 | 6·05 | 5·11 | P | P | P | P |
| 1846 | P | P | P | P | P | 6·37 | 10·87 | 2·27 | 2·18 | 6·89 | P | P | P |
| 1847 | P | P | P | P | P | 3·71 | 5·00 | 3·65 | 1·80 | 5·70 | 6·05 | ... | P |
| 1848 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | ... | ... | ... | ... | ... | 4·12 | 12·25 | 5·60 | 3·95 | 4·70 | ... | ... | 30·62 |
| 1862 | ... | ... | ... | ... | ... | 9·10 | 3·18 | 2·73 | 7·29 | 7·82 | 1·64 | ... | 31·76 |
| 1863 | ... | ... | ... | ... | 0·20 | 8·12 | 3·99 | 4·27 | 5·16 | 3·80 | ... | ... | 25·54 |
| 1864 | ... | ... | ... | ... | ... | 2·19 | 7·95 | 3·56 | 0·96 | 0·57 | 0·85 | ... | 16·08 |
| 1865 | ... | ... | ... | ... | ... | 1·54 | 3·14 | 9·36 | 7·36 | 6·57 | 0·29 | 0·08 | 28·34 |
| 1866 | ... | ... | ... | ... | 0·46 | 5·28 | 5·03 | 8·45 | 0·50 | 3·92 | ... | 0·03 | 23·67 |
| 1867 | ... | ... | 0·19 | ... | ... | 2·72 | 4·85 | 11·96 | 1·90 | 5·16 | 0·22 | ... | 27·00 |
| 1868 | ... | ... | ... | ... | 0·25 | 3·93 | 8·14 | 5·15 | 1·61 | 0·93 | ... | ... | 20·01 |
| 1869 | ... | ... | ... | ... | 1·31 | 3·67 | 6·72 | 5·89 | 3·04 | 6·29 | 0·38 | 1·08 | 28·38 |
| 1870 | 0·10 | ... | 0·03 | ... | ... | 8·53 | 7·04 | 2·52 | 5·38 | 8·40 | 0·09 | P | 32·09? |
| 1871 | 1·03 | ... | ... | 0·82 | ... | 5·06 | 5·33 | 4·36 | 1·85 | 1·47 | 0·38 | ... | 20·30 |
| 1872 | ... | ... | ... | 0·25 | ... | 5·24 | 7·50 | 1·60 | 8·04 | 0·73 | ... | 2·05 | 25·41 |
| 1873 | ... | 0·72 | ... | ... | 3·36 | 3·07 | 3·62 | 4·58 | 4·90 | 0·73 | 1·23 | ... | 22·21 |
| 1874 | ... | ... | ... | 0·15 | 0·03 | 12·74 | 9·36 | 4·76 | 6·83 | 1·43 | 0·16 | 0·08 | 35·54 |
| 1875 | 0·05 | 0·05 | 0·07 | 0·22 | 0·03 | 8·95 | 10·47 | 5·86 | 6·97 | 0·63 | 0·10 | 1·29 | 34·69 |
| 1876 | ... | ... | ... | ... | ... | 1·54 | 9·52 | 5·65 | 0·80 | ... | 0·20 | ... | 17·71 |
| 1877 | ... | 0·25 | 0·15 | ... | ... | 4·42 | 2·93 | 1·27 | 5·89 | 4·18 | ... | 0·15 | 19·24 |
| 1878 | ... | ... | ... | 0·23 | ... | 3·10 | 12·99 | 14·62 | 18·38 | 2·64 | ... | ... | 51·96 |
| 1879 | ... | ... | ... | ... | 4·29 | 14·11 | 3·89 | 8·02 | 3·24 | 2·53 | ... | ... | 36·08 |
| 1880 | ... | ... | 0·01 | ... | ... | 2·71 | 8·60 | 1·19 | 4·22 | 2·99 | 0·31 | ... | 20·03 |
| 1881 | ... | ... | ... | 0·18 | 2·08 | 1·42 | 10·86 | 3·34 | 2·85 | 1·58 | 0·13 | ... | 22·44 |
| 1882 | ... | ... | ... | 0·03 | 1·49 | 13·01 | 8·65 | 2·16 | 15·15 | 0·46 | 0·57 | ... | 41·52 |
| 1883 | 0·44 | ... | ... | ... | 0·62 | 13·69 | 13·30 | 6·63 | 12·19 | 13·71 | 0·04 | ... | 60·62 |
| Mean | **0·07** | **0·04** | **0·02** | **0·08** | **0·61** | **6·13** | **7·26** | **5.13** | **5·19** | **3·64** | **0·53** | **0·21** | **28·91** |

NASIK—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 0·30 | ... | ... | 0·40 | ... | 1·11 | 15·10 | 2·95 | 6·15 | 4·25 | ... | 1·29 | 31·55 |
| 1885 | ... | ... | 0·05 | 0·07 | 0·12 | 1·30 | 9·44 | 11·17 | 4·94 | 5·41 | 0·40 | ... | 32·90 |
| 1886 | ... | ... | ... | ... | 2·68 | 11·73 | 7·73 | 3·24 | 2·27 | 9·32 | 0·25 | 0·06 | 37·28 |
| Mean | 0·07 | 0·04 | 0·02 | 0·09 | 0·65 | 5·99 | 7·61 | 5·19 | 5·12 | 3·91 | 0·49 | 0·24 | 29·42 |

No. 297. AHMEDNAGAR.

Latitude N. 19° 6′. Longitude E. 74° 47′. Elevation 2,180 feet.

Administration: BOMBAY. Rainfall Province No. XVI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ... | ... | ... | 0·75 | 0·95 | 4·03 | 1·83 | 1·21 | 10·54 | 0·21 | ... | ... | 19·52 |
| 1845 | 0·10 | ... | 1·81 | 0·09 | 8·63 | 3·30 | 0·03 | 3·22 | 0·71 | 0·04 | 1·10 | ... | 19·03 |
| 1846 | ... | ... | ... | 0·23 | 4·06 | 4·36 | 8·79 | 1·63 | 7·02 | 0·72 | ... | 0·37 | 27·18 |
| 1847 | ... | 0·78 | 0·72 | 2·29 | 2·96 | 8·96 | 2·00 | 2·58 | 8·94 | 0·12 | 6·48 | ... | 35·83 |
| 1848 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | 0·83 | ... | 0·07 | ... | 3·61 | 8·48 | 4·45 | 8·01 | 7·67 | 3·64 | ... | ... | 36·76 |
| 1862 | 0·06 | ... | ... | 0·76 | ... | 5·34 | 0·06 | 2·61 | 8·94 | 8·43 | 0·82 | ... | 27·02 |
| 1863 | ... | ... | 1·48 | 0·32 | 1·39 | 2·10 | 0·97 | 4·15 | 7·48 | 2·12 | ... | 0·16 | 20·17 |
| 1864 | 0·37 | ... | ... | 0·05 | 0·09 | 6·16 | 1·98 | 7·26 | 1·98 | 0·08 | 2·25 | ... | 20·22 |
| 1865 | 0·48 | 0·17 | ... | 3·00 | 1·53 | 4·65 | 2·31 | 4·30 | 4·65 | 3·58 | 0·30 | 0·13 | 25·10 |
| 1866 | ... | ... | ... | ... | ... | 3·35 | 5·66 | 4·64 | 4·79 | 3·00 | ... | ... | 21·44 |
| 1867 | ... | ... | ... | ... | 0·22 | 8·51 | 1·12 | 3·09 | 5·08 | 9·29 | 0·93 | ... | 28·24 |
| 1868 | 1·46 | ... | 0·50 | 0·12 | 0·25 | 2·76 | 4·40 | 2·96 | 4·30 | 0·30 | ... | ... | 17·05 |
| 1869 | ... | ... | ... | ... | 2·64 | 7·23 | 2·15 | 8·54 | 4·36 | 4·65 | 1·51 | 0·51 | 31·59 |
| 1870 | ... | ... | 0·13 | ... | ... | 3·12 | 8·94 | 7·30 | 9·55 | 17·43 | 0·35 | ... | 46·82 |
| 1871 | 7·84 | ... | ... | 0·69 | 0·42 | 3·87 | 0·34 | 1·57 | 3·25 | 0·03 | 0·96 | ... | 18·97 |
| 1872 | ... | ... | ... | 0·85 | 0·40 | 7·14 | 4·52 | 1·00 | 13·60 | 0·01 | ... | 0·63 | 28·15 |
| 1873 | ... | 0·89 | ... | 0·13 | 0·72 | 7·77 | 3·77 | 7·56 | 7·05 | ... | 3·16 | ... | 31·05 |
| 1874 | ... | 0·18 | ... | 0·26 | 3·51 | 3·56 | 5·62 | 2·16 | 13·48 | 2·42 | 0·06 | ... | 31·25 |
| 1875 | ... | ... | 0·13 | 0·28 | 0·14 | 1·73 | 2·00 | 4·13 | 8·94 | 1·09 | 0·06 | 1·41 | 19·82 |
| 1876 | ... | ... | ... | ... | ... | 3·24 | 2·30 | 1·28 | 1·82 | 0·09 | 0·26 | ... | 8·99 |
| 1877 | ... | 0·02 | 0·16 | 2·15 | 0·94 | 9·93 | 0·49 | 3·63 | 4·51 | 2·73 | 0·42 | 0·11 | 25·09 |
| 1878 | ... | ... | ... | 0·86 | 0·05 | 1·64 | 4·06 | 8·54 | 6·78 | 2·66 | 0·22 | ... | 24·81 |
| 1879 | ... | 0·11 | ... | ... | 1·69 | 5·63 | 8·33 | 6·36 | 1·15 | 5·20 | 0·20 | ... | 28·67 |
| 1880 | ... | ... | ... | ... | 0·55 | 0·84 | 2·89 | 1·38 | 10·99 | 2·38 | 1·11 | ... | 20·14 |
| 1881 | ... | ... | ... | ... | 0·21 | 2·76 | 1·88 | 2·28 | 8·75 | 1·15 | 0·85 | ... | 17·88 |
| 1882 | ... | ... | ... | 0·18 | 1·40 | 4·32 | 1·32 | 1·77 | 10·26 | ... | 1·87 | 0·08 | 21·20 |
| 1883 | ... | ... | ... | ... | 0·67 | 10·65 | 1·82 | 8·33 | 10·90 | 8·14 | 1·31 | ... | 41·82 |
| Mean | 0·41 | 0·08 | 0·19 | 0·48 | 1·37 | 5·02 | 3·11 | 4·13 | 6·94 | 2·94 | 0·90 | 0·13 | 25·70 |

AHMEDNAGAR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 0·30 | ... | ... | 1·09 | ... | 0·79 | 1·84 | 7·11 | 4·98 | 5·11 | ... | 2·52 | 23·74 |
| 1885 | ... | ... | 0·23 | ... | 1·05 | 0·91 | 3·71 | 1·07 | 8·18 | 3·70 | 1·05 | 0·45 | 20·35 |
| 1886 | ... | ... | ... | ... | 2·19 | 5·29 | 3·97 | 8·78 | 5·35 | 10·33 | 0·16 | 7·50 | 43·57 |
| Mean | 0·38 | 0·07 | 0·17 | 0·47 | 1·34 | 4·75 | 3·12 | 4·28 | 6·87 | 3·29 | 0·85 | 0·46 | 26·05 |

No. 298. POONA.

Latitude N. 18° 28′. Longitude E. 74° 10′. Elevation 2,000 feet.

Administration: BOMBAY. Rainfall Province No. XVI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1826 | ... | ... | ... | ... | 3·41 | 3·30 | 8·43 | 1·03 | 1·54 | 1·90 | 2·33 | 0·40 | 22·34 |
| 1827 | 2·29 | ... | 0·40 | ... | 0·04 | 13·47 | 1·79 | 2·01 | 4·51 | 4·33 | 0·15 | ... | 28·99 |
| 1828 | ... | ... | ... | ... | 1·95 | 1·63 | 7·58 | 3·35 | 6·92 | 6·34 | 2·04 | ... | 29·81 |
| 1829 | ... | ... | ... | ... | 2·74 | 4·86 | 4·38 | 3·21 | 0·33 | 1·81 | ... | 1·20 | 18·53 |
| 1830 | ... | ... | ... | 1·04 | 0·79 | 5·57 | 5·35 | 1·72 | 0·29 | 3·07 | ... | ... | 17·83 |
| 1831 to 1841 | Not on record. | | | | | | | | | | | | |
| 1842 | ... | ... | ... | ... | ... | 4·43 | 24·90 | 12·24 | 7·00 | ... | ... | ... | 48·57 |
| 1843 | Not on record. | | | | | | | | | | | | |
| 1844 | ... | ... | ... | ... | ... | 5·91 | 4·29 | 1·07 | 2·92 | ... | ... | ... | 14·19 |
| 1845 | ... | ... | ... | ... | ... | 3·22 | 2·78 | 1·66 | 5·55 | 1·13 | ... | ... | 14·34 |
| 1846 | ... | ... | ... | ... | 1·27 | 8·79 | 9·85 | 0·10 | 1·48 | 4·73 | 1·42 | 0·23 | 27·87 |
| 1847 | ... | ... | 0·24 | 4·41 | 2·51 | 2·79 | 2·71 | 1·48 | 2·11 | 0·87 | 5·09 | ... | 22·21 |
| 1848 | ... | ... | ... | 1·82 | 7·88 | 3·11 | 6·90 | 1·69 | 2·12 | 3·08 | 1·34 | ... | 27·94 |
| 1849 | ... | ... | ... | ... | 1·02 | 11·87 | 6·84 | 7·92 | ... | ... | ... | ... | 27·65 |
| 1850 to 1855 | Not on record. | | | | | | | | | | | | |
| 1856 | ... | ... | ... | 0·10 | 3·33 | 1·87 | 8·26 | 3·89 | 2·42 | 0·45 | 0·20 | 0·44 | 20·96 |
| 1857 | 1·37 | ... | 0·52 | 2·23 | 2·86 | 2·97 | 0·75 | 8·20 | 1·22 | 7·76 | 0·61 | ... | 28·49 |
| 1858 | ... | ... | ... | ... | 5·29 | ... | 7·48 | 1·20 | 3·38 | 5·13 | 1·57 | ... | 24·05 |
| 1859 | ... | ... | 1·08 | 0·20 | 2·39 | 3·03 | 17·27 | 5·52 | 10·53 | 1·08 | ... | 0·16 | 41·26 |
| 1860 | ... | ... | ... | 0·52 | 0·20 | 17·22 | 5·34 | 2·61 | 8·47 | 4·21 | ... | ... | 38·57 |
| 1861 | 0·34 | ... | 0·45 | 0·28 | 0·59 | 6·17 | 21·57 | 12·47 | 7·30 | 7·69 | ... | ... | 56·86 |
| 1862 | 0·12 | ... | ... | 0·11 | ... | 7·52 | 2·17 | 3·14 | 9·90 | 9·15 | 0·79 | ... | 32·90 |
| 1863 | 0·02 | ... | 1·39 | 1·14 | 0·12 | 5·13 | ... | 4·68 | 2·86 | 7·07 | ... | ... | 22·41 |
| 1864 | ... | ... | 0·11 | ... | 0·14 | 9·51 | 3·66 | 3·01 | 2·92 | 1·90 | 0·70 | 0·04 | 21·99 |
| 1865 | 0·22 | 0·99 | ... | 2·31 | 2·53 | 4·41 | 5·35 | 6·55 | 1·86 | 7·80 | 0·18 | 1·52 | 33·72 |
| 1866 | ... | ... | ... | ... | 0·18 | 6·40 | 4·75 | 4·64 | 0·11 | 6·89 | ... | ... | 22·97 |
| 1867 | ... | ... | ... | ... | ... | 1·99 | 1·76 | 5·75 | 1·36 | 18·09 | 1·44 | 0·11 | 30·50 |
| 1868 | ... | ... | 1·33 | ... | 1·14 | 13·43 | 5·76 | 9·33 | 5·48 | 1·06 | ... | ... | 37·53 |
| 1869 | ... | ... | 0·12 | ... | 4·97 | 1·48 | 5·99 | 6·20 | 1·92 | 2·70 | 1·61 | 1·71 | 26·70 |
| 1870 | ... | ... | 0·11 | ... | 0·05 | 4·62 | 9·47 | 3·18 | 10·04 | 9·05 | ... | ... | 36·52 |

POONA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | 5·06 | ... | ... | 1·80 | 1·40 | 5·50 | 4·03 | 2·94 | 3·52 | 2·09 | 1·61 | ... | 27·95 |
| 1872 | ... | ... | ... | 0·57 | 0·80 | 5·96 | 7·95 | 1·54 | 4·06 | 0·33 | ... | 0·89 | 22·10 |
| 1873 | ... | 0·19 | ... | 0·17 | 3·49 | 6·11 | 3·19 | 3·27 | 7·89 | 0·17 | 1·16 | 0·03 | 25·67 |
| 1874 | ... | 0·25 | ... | 0·86 | 1·50 | 8·63 | 6·72 | 4·79 | 6·14 | 7·88 | 0·86 | 0·10 | 37·73 |
| 1875 | 0·12 | ... | 0·51 | 0·73 | ... | 6·84 | 11·34 | 11·34 | 7·45 | 1·53 | ... | 0·39 | 40·25 |
| 1876 | ... | ... | ... | ... | 0·31 | 3·93 | 6·05 | 3·18 | 1·14 | 0·73 | ... | ... | 15·34 |
| 1877 | 0·02 | 0·12 | 0·12 | 0·02 | 0·02 | 8·85 | 1·42 | 1·38 | 4·68 | 2·95 | 1·90 | ... | 21·48 |
| 1878 | ... | ... | ... | 0·63 | ... | 1·94 | 10·43 | 8·73 | 4·69 | 6·65 | 0·51 | ... | 33·58 |
| 1879 | ... | ... | ... | ... | 7·13 | 8·16 | 2·63 | 7·00 | 0·69 | 0·95 | 0·55 | ... | 27·11 |
| 1880 | ... | ... | 0·33 | 1·12 | 1·74 | 4·28 | 3·75 | 0·19 | 6·00 | 2·24 | 1·37 | ... | 21·02 |
| 1881 | ... | ... | 0·01 | 1·35 | ... | 0·43 | 7·88 | 2·27 | 2·28 | 2·53 | 0·48 | ... | 17·23 |
| 1882 | 0·04 | ... | 0·26 | 0·75 | 1·85 | 9·31 | 7·51 | 0·93 | 5·60 | 1·45 | 2·06 | 0·25 | 30·01 |
| 1883 | ... | ... | 0·13 | 0·29 | 1·90 | 10·10 | 5·23 | 3·01 | 10·91 | 7·97 | 0·08 | ... | 39·62 |
| Mean | 0·24 | 0·04 | 0·18 | 0·56 | 1·64 | 5·87 | 6·59 | 4·21 | 4·24 | 3·87 | 0·75 | 0·19 | 28·38 |
| 1884 | 0·20 | ... | 0·07 | 0·31 | ... | 1·91 | 10·40 | 2·59 | 4·63 | 7·49 | 0·04 | 1·37 | 29·01 |
| 1885 | ... | ... | ... | 0·29 | 3·16 | 0·93 | 6·67 | 3·92 | 8·07 | 3·21 | 2·04 | 1·31 | 29·60 |
| 1886 | ... | ... | ... | 0·73 | 0·54 | 2·69 | 4·97 | 0·99 | 4·06 | 11·86 | 1·18 | 0·42 | 27·44 |
| Mean | 0·23 | 0·04 | 0·17 | 0·55 | 1·61 | 5·59 | 6·64 | 4·09 | 4·33 | 4·12 | 0·77 | 0·25 | 28·39 |

No. 299. SATARA.

Latitude N. 17° 41′. Longitude E. 74° 2′. Elevation 2,200 feet.

Administration: BOMBAY. Rainfall Province No. XVI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1836 | ... | ... | 0·18 | 0·52 | 1·16 | 6·99 | 10·59 | 6·98 | 4·40 | 3·15 | 4·45 | 0·11 | 38·53 |
| 1837 to 1843 | Not on record. | | | | | | | | | | | | |
| 1844 | 0·03 | 0·07 | ... | 1·02 | 1·16 | 9·87 | 11·72 | 4·41 | 4·12 | 3·55 | ... | 0·11 | 36·06 |
| 1845 | 0·04 | 0·06 | ... | 0·01 | ... | 6·04 | 7·77 | 11·91 | 9·71 | 2·70 | 2·00 | ... | 40·24 |
| 1846 | ... | 0·18 | ... | ... | 3·49 | 10·49 | 16·04 | 2·13 | 0·77 | 2·98 | 0·98 | 2·46 | 39·52 |
| 1847 | ... | ... | 0·18 | 10·88 | 0·39 | 3·77 | 6·28 | 2·68 | 3·55 | 5·25 | 8·00 | 0·05 | 41·03 |
| 1848 | ... | ... | 0·04 | 0·78 | 2·79 | 3·36 | 12·02 | 2·55 | 1·40 | 2·28 | 1·71 | ... | 26·93 |
| 1849 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | 0·06 | ... | ... | 0·62 | 2·95 | 2·13 | 21·00 | 19·86 | 3·21 | 3·77 | ... | ... | 53·60 |
| 1862 | 0·33 | ... | ... | 0·10 | 0·01 | 5·45 | 9·86 | 7·57 | 5·99 | 4·46 | 0·64 | ... | 34·41 |
| 1863 | ... | ... | 1·07 | ... | 0·11 | 17·85 | 10·62 | 11·60 | 1·42 | 3·72 | ... | ... | 46·39 |
| 1864 | ... | ... | 0·01 | 0·66 | 0·46 | 13·29 | 15·88 | 7·85 | 2·11 | 0·07 | 5·57 | ... | 45·90 |
| 1865 | 0·74 | 0·04 | ... | 5·25 | 4·72 | 1·85 | 8·34 | 12·26 | 0·22 | 5·70 | 0·87 | 0·01 | 40·00 |
| 1866 | ... | ... | ... | ... | ... | 10·72 | 7·05 | 7·49 | 0·51 | 4·81 | 0·12 | ... | 30·70 |

SATARA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ... | ... | ... | 0·24 | ... | 7·85 | 6·61 | 9·12 | 1·42 | 9·55 | 3·51 | ... | 38·30 |
| 1868 | ... | ... | ... | ... | 1·47 | 15·40 | 8·15 | 11·08 | 3·88 | 0·95 | ... | ... | 40·93 |
| 1869 | ... | ... | ... | ... | 1·22 | 6·96 | 14·99 | 5·62 | 4·67 | 0·35 | 3·05 | 1·38 | 38·24 |
| 1870 | 0·64 | ... | 0·05 | 0·43 | 0·36 | 7·98 | 23·65 | 6·92 | 5·44 | 8·02 | ... | ... | 53·49 |
| 1871 | 8·02 | ... | ... | 0·33 | 1·59 | 7·89 | 10·43 | 7·67 | 0·77 | 2·86 | 1·35 | ... | 40·91 |
| 1872 | ... | ... | ... | 1·06 | ... | 8·39 | 14·70 | 3·28 | 6·43 | 1·08 | ... | 5·38 | 40·32 |
| 1873 | ... | ... | ... | 0·60 | 1·22 | 4·94 | 19·08 | 6·16 | 5·20 | 3·18 | 1·54 | 0·02 | 41·94 |
| 1874 | .... | 0·80 | ... | 0·36 | 3·32 | 12·72 | 9·97 | 3·92 | 11·53 | 2·64 | 0·10 | 0·40 | 45·76 |
| 1875 | ... | ... | ... | 0·19 | 3·11 | 5·75 | 19·79 | 7·39 | 16·13 | 2·10 | 0·33 | 0·45 | 55·24 |
| 1876 | ... | ... | ... | ... | ... | 4·72 | 24·39 | 4·16 | 0·32 | ... | 0·30 | ... | 33·89 |
| 1877 | ... | 1·10 | ... | ... | 0·59 | 4·11 | 4·59 | 4·66 | 8·41 | 6·42 | 0·39 | ... | 30·27 |
| 1878 | ... | ... | ... | 0·30 | 1·00 | 3·48 | 13·26 | 12·91 | 10·14 | 3·53 | ? | ... | 44·62? |
| 1879 | ... | 0·08 | ... | 0·42 | 2·02 | 10·77 | 7·38 | 14·84 | 1·38 | 2·31 | 1·08 | ... | 40·28 |
| 1880 | ... | ... | 0·23 | ... | 1·31 | 7·34 | 6·52 | 1·97 | 4·56 | 4·66 | 2·09 | ... | 28·68 |
| 1881 | ... | ... | ... | 0·50 | 1·53 | 0·43 | 16·78 | 7·77 | 3·26 | 1·77 | 3·88 | ... | 35·92 |
| 1882 | ... | ... | 0·58 | 0·91 | 2·04 | 16·44 | 27·81 | 3·23 | 2·99 | 0·96 | 2·37 | 0·89 | 58·22 |
| 1883 | 0·11 | ... | ... | 0·81 | 1·57 | 10·79 | 11·85 | 4·86 | 7·53 | 5·54 | 1·10 | ... | 44·16 |
| Mean | 0·34 | 0·08 | 0·08 | 0·90 | 1·37 | 7·85 | 13·00 | 7·34 | 4·53 | 3·39 | 1·62 | 0·39 | 40·89 |
| 1884 | 0·14 | ... | ... | 0·38 | ... | 4·61 | 23·28 | 6·06 | 5·02 | 3·85 | 1·10 | 2·90 | 47·34 |
| 1885 | ... | ... | 0·05 | 0·60 | 3·38 | 5·41 | 11·96 | 9·47 | 7·16 | 3·84 | 1·28 | 0·20 | 43·36 |
| 1886 | ... | ... | ... | 0·45 | 2·70 | 8·73 | 9·41 | 3·16 | 2·78 | 8·01 | 1·39 | 1·50 | 38·13 |
| Mean | 0·32 | 0·07 | 0·07 | 0·86 | 1·43 | 7·70 | 13·18 | 7·24 | 4·58 | 3·56 | 1·59 | 0·50 | 41·10 |

No. 300. SHOLAPUR.

Latitude N. 17° 41′. Longitude E. 75° 56′. Elevation 1,590 feet.

Administration: BOMBAY. Rainfall Province No. XVI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1853 | ... | 0·09 | 0·60 | 1·17 | 0·36 | 3·43 | ... | 11·23 | 4·87 | 0·20 | 3·80 | ... | 25·75 |
| 1854 | ... | ... | ... | ... | 1·12 | 2·60 | 7·56 | 3·81 | 8·25 | 6·46 | 0·58 | 1·20 | 31·58 |
| 1855 | ... | 0·33 | 0·47 | 0·10 | 0·02 | 3·86 | 0·55 | 0·38 | 2·14 | 5·80 | ... | ... | 13·65 |
| 1856 | ... | ... | 0·92 | 0·20 | 5·55 | 4·52 | 1·41 | 7·96 | 0·89 | 2·21 | 0·07 | 0·04 | 23·77 |
| 1857 | 0·06 | 0·06 | 0·37 | 0·31 | 6·78 | 3·86 | 3·86 | 1·14 | 10·09 | 3·01 | 4·66 | ... | 34·20 |
| 1858 | ... | 0·11 | 0·03 | 1·17 | 1·67 | 5·21 | 4·61 | 1·53 | 9·92 | 6·79 | 2·46 | ... | 33·50 |
| 1859 | ... | ... | 0·05 | 7·58 | 1·07 | 1·72 | 3·86 | 8·37 | 6·56 | 4·12 | ... | ... | 33·33 |
| 1860 | ... | ... | ... | 0·79 | ... | 13·29 | 6·79 | 0·95 | 8·12 | 3·13 | ... | ... | 33·07 |
| 1861 | 0·88 | ... | 0·10 | 0·48 | 1·25 | 1·48 | 3·36 | 6·79 | 3·18 | 1·95 | ... | ... | 19·47 |
| 1862 | 0·13 | ... | ... | 0·83 | 0·04 | 2·52 | 0·58 | 3·55 | 12·50 | 2·70 | 0·89 | ... | 23·74 |
| 1863 | ... | ... | 1·03 | 0·08 | 0·05 | 2·06 | 8·32 | 3·83 | 7·07 | 0·89 | ... | ... | 23·33 |
| 1864 | ... | ... | ... | 0·13 | 1·35 | 8·73 | 2·45 | 7·25 | 3·39 | ... | ... | ... | 23·30 |
| 1865 | ... | 1·67 | 0·24 | 1·62 | 3·41 | 1·01 | 3·65 | 8·10 | 0·96 | 2·60 | 0·17 | ... | 23·43 |
| 1866 | ... | ... | 0·15 | ... | 0·03 | 2·83 | 8·61 | 3·73 | 4·85 | 3·49 | 2·31 | ... | 26·00 |

SHOLAPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ... | ... | 0·68 | 0·92 | 0·10 | 5·71 | 1·48 | 5·31 | 5·92 | 7·32 | 0·13 | ... | 27·57 |
| 1868 | 0·23 | ... | ... | 0·20 | 0·78 | 5·98 | 7·46 | 5·25 | 5·70 | 0·72 | ... | ... | 26·32 |
| 1869 | ... | ... | ... | ... | 1·19 | 7·17 | 1·50 | 10·85 | 9·54 | 5·48 | 0·05 | ... | 35·78 |
| 1870 | ... | ... | ... | ... | ... | 4·15 | 11·84 | 1·81 | 5·54 | 11·69 | ... | ? | 35·03 ? |
| 1871 | ... | ... | ... | ... | ? | 1·35 | 0·49 | 2·19 | 8·81 | 0·18 | 0·07 | ... | 13·09 ? |
| 1872 | ... | ... | 0·66 | 0·16 | 0·40 | 3·37 | 4·71 | 5·92 | 20·32 | 1·12 | 0·08 | 0·87 | 37·61 |
| 1873 | ... | 0·81 | ... | 1·29 | 2·40 | 7·00 | 3·03 | 4·86 | 7·88 | 0·81 | 0·25 | ... | 28·33 |
| 1874 | ... | 0·05 | ... | 0·39 | 2·56 | 5·16 | 8·56 | 2·95 | 12·61 | 2·39 | ... | ... | 34·67 |
| 1875 | ... | ... | 0·30 | 0·06 | 0·25 | 3·79 | 4·23 | 7·35 | 4·39 | 3·22 | 0·02 | 1·12 | 24·73 |
| 1876 | ... | ... | 1·52 | 0·24 | ... | 2·05 | 2·36 | 3·60 | 0·54 | 0·26 | ... | ... | 10·57 |
| 1877 | ... | 0·11 | 0·48 | 1·60 | 0·14 | 8·40 | 3·76 | 5·75 | 10·86 | 3·79 | ... | 1·39 | 36·28 |
| 1878 | ... | ... | ... | 1·25 | 0·39 | 4·19 | 9·83 | 19·02 | 19·77 | 12·59 | 0·99 | ... | 68·03 |
| 1879 | ... | 0·35 | 0·02 | 0·32 | 2·36 | 3·35 | 3·57 | 8·99 | 0·41 | 3·21 | 0·44 | 0·04 | 23·06 |
| 1880 | ... | ... | 0·48 | 0·31 | 0·09 | 4·21 | 9·08 | 5·44 | 12·47 | 3·44 | 0·50 | ... | 36·02 |
| 1881 | ... | ... | ... | 0·70 | 1·71 | 3·23 | 2·08 | 7·67 | 4·40 | 0·84 | 2·17 | ... | 22·80 |
| 1882 | 0·09 | ... | 0·37 | 0·07 | 0·99 | 12·54 | 3·03 | 7·15 | 14·07 | 0·77 | 1·31 | 0·18 | 40·57 |
| 1883 | 0·02 | ... | 0·14 | 0·08 | 0·17 | 11·53 | 2·08 | 16·18 | 6·48 | 1·76 | 1·49 | ... | 39·93 |
| Mean | **0·05** | **0·12** | **0·28** | **0·71** | **1·21** | **4·85** | **4·35** | **6·09** | **7·50** | **3·32** | **0·72** | **0·16** | **29·36** |
| 1884 | 0·02 | ... | ... | 0·65 | 0·02 | 0·47 | 3·32 | 4·55 | 3·89 | 6·76 | 0·25 | 1·86 | 21·79 |
| 1885 | ... | ... | 0·31 | 0·66 | 0·97 | 1·29 | 4·22 | 1·74 | 14·33 | 4·93 | 0·26 | 1·98 | 30·69 |
| 1886 | ... | ... | ... | 0·03 | 0·70 | 4·21 | 5·45 | 8·88 | 3·21 | 10·29 | 0·06 | 4·04 | 36·87 |
| Mean | **0·04** | **0·11** | **0·26** | **0·69** | **1·15** | **4·60** | **4·34** | **6·00** | **7·47** | **3·67** | **0·68** | **0·39** | **29·40** |

No. 301. BIJAPUR.

Latitude N. 16° 50′. Longitude E. 75° 46′. Elevation 1,999 feet.

Administration: BOMBAY. Rainfall Province No. XVI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | ? | ? | ? | ? | ? | 3·84 | 0·58 | 2·21 | 7·87 | ? | ? | ? | ? |
| 1863 | ? | ? | ? | ? | ? | 1·07 | 1·64 | 5·61 | 5·22 | ? | ? | ? | ? |
| 1864 | ? | ? | ? | ? | ? | 12·73 | 1·15 | 9·66 | 1·90 | ? | ? | ? | ? |
| 1865 | ? | ? | ? | ? | ? | 3·45 | 4·65 | 2·60 | ... | ? | ? | ? | ? |
| 1866 | ? | ? | ? | ? | ? | 0·75 | 2·63 | 0·25 | 5·26 | ? | ? | ? | ? |
| 1867 | ? | ? | ? | ? | ... | 6·66 | 1·34 | 2·45 | 11·43 | 4·82 | ... | ? | ? |
| 1868 | ? | ? | ? | ? | ? | 4·17 | 1·15 | 5·48 | 5·06 | 0·78 | ... | ... | ? |
| 1869 | ... | ... | ... | 0·34 | 0·85 | 4·10 | 1·98 | 10·80 | 1·23 | 3·40 | ... | 4·26 | 26·96 |
| 1870 | ... | ... | 1·24 | ... | 0·19 | 1·88 | 2·32 | 3·31 | 6·50 | 4·72 | 0·69 | ? | 20·85? |
| 1871 | 0·25 | ... | ... | ... | 1·26 | 2·05 | 0·99 | 2·26 | 2·74 | 2·09 | 0·46 | ... | 12·10 |
| 1872 | ... | ... | ... | ... | ... | 0·23 | 5·54 | 1·95 | 12·45 | 0·77 | ... | 2·46 | 23·40 |
| 1873 | ... | 0·23 | ... | 0·15 | 1·58 | 0·96 | 1·52 | 4·22 | 5·32 | 3·59 | ... | ... | 17·57 |
| 1874 | ... | 0·03 | ... | 0·40 | 2·11 | 4·92 | 4·16 | 1·32 | 18·68 | 2·99 | 0·03 | ... | 34·64 |
| 1875 | ... | ... | ... | ... | ... | 3·97 | 1·42 | 2·34 | 2·01 | 4·08 | ... | ? | 13·82 ? |

BIJAPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | 0·88 | 1·02 | ... | 2·13 | 0·59 | 0·25 | 0·74 | ... | ... | ... | 5·61 |
| 1877 | ... | ... | 0·40 | 2·60 | 0·31 | 4·98 | 2·24 | 4·23 | 13·78 | 8·77 | ... | 3·41 | 40·72 |
| 1878 | ... | ... | ... | 0·64 | 0·44 | 2·24 | 7·90 | 7·49 | 6·77 | 7·09 | 2·08 | ... | 34·65 |
| 1879 | ... | 0·12 | 0·02 | 0·41 | 1·45 | 4·14 | 7·94 | 3·77 | 4·18 | 4·33 | 0·98 | 0·18 | 27·52 |
| 1880 | ... | ... | 0·37 | 0·63 | 0·29 | 4·67 | 2·02 | 2·14 | 4·86 | 8·98 | 3·05 | 0·15 | 27·16 |
| 1881 | ... | ... | ... | 1·57 | 0·43 | 2·04 | 0·42 | 5·27 | 4·77 | 5·09 | 3·19 | ... | 22·78 |
| 1882 | 0·30 | ... | 0·16 | 0·18 | 1·58 | 3·33 | 1·95 | 5·74 | 10·58 | 7·38 | 6·18 | 0·30 | 37·68 |
| 1883 | ... | ... | 0·12 | ... | 0·89 | 4·80 | 1·18 | 9·82 | 2·69 | 3·36 | 4·23 | ... | 27·09 |
| Mean | 0·04 | 0·03 | 0·21 | 0·53 | 0·71 | 3·60 | 2·51 | 4·24 | 6·09 | 4·25 | 1·23 | 0·77 | 24·21 |
| 1884 | 0·33 | ... | ... | 0·60 | 0·19 | 0·12 | 1·73 | 0·91 | 2·86 | 2·51 | ... | 1·76 | 11·01 |
| 1885 | ... | ... | 0·14 | 1·80 | 3·07 | 0·76 | 3·88 | 0·53 | 9·37 | 7·51 | 1·70 | 1·44 | 30·20 |
| 1886 | ... | ... | ... | 0·99 | 0·92 | 4·79 | 2·31 | 4·36 | 5·04 | 10·57 | 0·30 | 1·98 | 31·26 |
| Mean | 0·05 | 0·02 | 0·19 | 0·63 | 0·82 | 3·39 | 2·53 | 3·96 | 6·05 | 4·64 | 1·14 | 0·94 | 24·36 |

No. 302. KOLHAPUR.

Latitude N. 16° 42′. Longitude E. 74° 16′. Elevation 1,797 feet.

Administration : BOMBAY. Rainfall Province No. XVI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1847 | ? | ? | ? | ? | ? | 1·62 | 6·40 | 3·75 | 0·82 | 4·72 | 3·43 | ... | ? |
| 1848 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | 0·11 | ... | ... | 2·51 | 1·25 | 4·28 | 14·96 | 13·06 | 2·86 | 6·76 | ... | ... | 45·79 |
| 1862 | ... | ... | ... | 1·14 | 1·68 | 10·90 | 7·27 | 8·36 | 7·13 | 7·72 | 0·27 | ... | 44·47 |
| 1863 | ... | 0·12 | 0·43 | 0·74 | ... | 11·88 | 8·90 | 5·36 | 1·71 | 5·18 | ... | 0·65 | 34·97 |
| 1864 | ... | ... | ... | 0·85 | 1·50 | 12·92 | 10·41 | 4·04 | 3·85 | 0·17 | 0·98 | ... | 34·72 |
| 1865 | 0·19 | 0·02 | ... | 5·92 | 6·75 | 2·17 | 7·10 | 11·56 | 0·94 | 4·31 | 0·55 | 0·10 | 39·61 |
| 1866 | ... | ... | ... | ... | ... | 6·91 | 10·86 | 5·99 | 0·93 | 3·91 | ... | ... | 28·60 |
| 1867 | ... | ... | ... | 2·65 | 1·75 | 9·89 | 5·45 | 7·19 | 1·91 | 10·35 | 0·76 | ... | 39·95 |
| 1868 | ... | ... | ... | 0·75 | 3·72 | 10·21 | 7·88 | 7·68 | 3·46 | 2·55 | ... | ... | 36·25 |
| 1869 | ... | ... | ? | 0·96 | 2·04 | 3·77 | 6·82 | 5·47 | 5·03 | 2·22 | 2·26 | ... | 28·57 ? |
| 1870 | ... | ... | ... | ... | 2·70 | 5·27 | 13·40 | 5·23 | 7·22 | 9·65 | 0·45 | ? | 43·92 ? |
| 1871 | ... | ... | ... | ... | ... | 8·34 | 10·01 | 7·32 | 2·45 | 5·41 | ... | ... | 33·53 |
| 1872 | ... | ... | ... | 1·48 | 2·35 | 8·52 | 12·85 | 3·33 | 4·97 | 3·63 | ... | 1·32 | 38·45 |
| 1873 | ... | ... | ... | ... | 0·65 | 2·32 | 11·52 | 4·94 | 2·13 | 3·72 | 0·26 | ... | 31·54 |
| 1874 | ... | 0·14 | ... | 2·71 | 2·93 | 12·06 | 16·69 | 6·44 | 6·72 | 8·90 | 0·15 | 0·18 | 56·92 |
| 1875 | ... | ... | 0·06 | 0·73 | 1·40 | 9·65 | 26·97 | 7·60 | 7·34 | 0·83 | 0·04 | 0·42 | 55·04 |
| 1876 | ... | ... | ... | 0·26 | ... | 3·17 | 16·42 | 4·54 | 1·45 | 0·75 | ... | ... | 26·59 |
| 1877 | ... | 0·07 | ... | 0·78 | 0·37 | 13·96 | 2·90 | 8·20 | 11·05 | 8·09 | ... | ... | 45·42 |
| 1878 | ... | ... | ... | 3·30 | 0·74 | 5·53 | 12·35 | 13·68 | 7·85 | 6·60 | 0·60 | ... | 50·65 |
| 1879 | ... | 0·06 | 0·03 | 1·61 | 4·17 | 8·53 | 6·33 | 19·47 | 1·58 | 5·37 | 1·27 | 0·20 | 48·62 |

KOLHAPUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1880 | ... | ... | 1·15 | 0·96 | 1·77 | 8·44 | 9·35 | 1·58 | 4·15 | 7·85 | 1·87 | ... | 37·12 |
| 1881 | ... | ... | ... | 1·65 | 0·85 | 1·10 | 10·70 | 8·56 | 3·24 | 4·46 | 1·60 | ... | 32·16 |
| 1882 | 0·27 | ... | ... | 0·30 | 3·87 | 14·31 | 26·21 | 3·88 | 5·55 | 1·45 | 0·03 | ... | 55·87 |
| 1883 | 0·14 | ... | ... | 2·63 | 1·04 | 5·77 | 13·90 | 4·76 | 3·23 | 3·57 | 1·61 | ... | 36·65 |
| Mean | 0·03 | 0·02 | 0·08 | 1·39 | 2·07 | 7·56 | 11·49 | 7·17 | 4·07 | 4·92 | 0·67 | 0·12 | 39·59 |
| 1884 | 0·10 | ... | ... | 1·84 | ... | 2·50 | 16·34 | 4·76 | 4·49 | 4·85 | 0·04 | 1·53 | 36·45 |
| 1885 | ... | ... | 0·10 | 0·48 | 4·87 | 3·81 | 11·66 | 6·35 | 2·91 | 8·34 | 0·51 | 0·03 | 39·06 |
| 1886 | ... | ... | ... | 0·76 | 1·69 | 14·44 | 13·44 | 3·88 | 2·50 | 9·92 | 0·70 | 1·14 | 48·47 |
| Mean | 0·03 | 0·02 | 0·07 | 1·35 | 2·08 | 7·49 | 11·74 | 6·93 | 3·98 | 5·23 | 0·64 | 0·21 | 39·77 |

No. 303. KALADGI.

Latitude N. 16° 13′. Longitude E. 75° 32′. Elevation 1,744 feet.

Administration: BOMBAY. Rainfall Province No. XVI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1866 | ... | ... | 0·17 | ... | 0·02 | ... | 2·75 | ... | 2·30 | 6·57 | ... | ... | 11·81 |
| 1867 | ... | ... | 0·39 | 0·30 | 0·57 | 4·52 | 0·53 | 1·23 | ... | ... | ... | ... | 7·54 |
| 1868 | ... | ... | 0·18 | 0·10 | 1·03 | 3·90 | 1·60 | 2·38 | 3·96 | 2·78 | 0·05 | ? | 15·98? |
| 1869 | ... | ... | 0·03 | 0·33 | 2·97 | 4·54 | 0·67 | 8·62 | 6·66 | 3·45 | 0·20 | 3·57 | 31·04 |
| 1870 | 0·32 | ... | ... | ... | ... | ... | ? | ? | ? | ? | ? | ? | ? |
| 1871 | ... | ... | ... | ... | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1872 | 1·05 | ... | 0·24 | 0·45 | 1·51 | 2·70 | 2·18 | 6·17 | 5·61 | 6·20 | 0·31 | 0·02 | 26·44 |
| 1873 | ... | ... | ... | 0·74 | 1·61 | 0·10 | 0·77 | 1·99 | 3·33 | 7·19 | ... | ... | 15·73 |
| 1874 | ... | 0·30 | ... | 0·43 | 2·44 | 3·93 | 2·64 | 0·52 | 22·06 | 2·98 | ... | ... | 35·30 |
| 1875 | ... | ... | 0·21 | 0·49 | 0·89 | 8·13 | 1·97 | 1·90 | 6·69 | 2·28 | ... | 0·58 | 23·14 |
| 1876 | ... | ... | 0·90 | 0·77 | 1·10 | 9·60 | 1·00 | 0·10 | 2·53 | 1·07 | ... | ... | 17·07 |
| 1877 | 0·03 | ... | 0·03 | 1·23 | 1·70 | 5·31 | 0·63 | 1·83 | 12·03 | 6·48 | ... | 1·86 | 31·13 |
| 1878 | ... | ... | ... | 1·07 | 0·65 | 1·85 | 3·86 | 9·11 | 4·45 | 9·67 | 1·88 | ... | 32·54 |
| 1879 | ... | 2·40 | 0·26 | 0·05 | 1·42 | 3·53 | 6·81 | 2·81 | 0·42 | 4·97 | 0·51 | 0·03 | 23·21 |
| 1880 | ... | ... | 1·22 | 0·41 | 3·94 | 2·16 | 1·67 | 4·17 | 4·87 | 9·75 | 0·65 | ... | 28·84 |
| 1881 | ... | ... | 0·11 | 0·70 | 3·01 | 0·76 | 1·24 | 3·28 | 3·73 | 2·13 | 5·08 | ... | 20·04 |
| 1882 | 0·38 | ... | 0·06 | ... | 1·02 | 0·14 | 3·55 | 2·60 | 8·08 | 2·16 | 1·43 | ... | 19·42 |
| 1883 | ... | ... | 0·19 | 1·52 | 0·14 | 5·38 | 1·50 | 4·16 | 0·63 | 5·14 | 0·86 | ... | 19·54 |
| Mean | 0·10 | 0·15 | 0·22 | 0·48 | 1·41 | 3·33 | 2·09 | 3·18 | 5·46 | 4·55 | 0·69 | 0·40 | 22·06 |
| 1884 | 0·07 | ... | 0·13 | 1·71 | 0·16 | 0·89 | 1·29 | 0·73 | 2·76 | 6·80 | ... | 0·90 | 15·44 |
| 1885 | ... | ... | 0·12 | Discontinued. | | | | | | | | | |
| Mean | 0·09 | 0·14 | 0·21 | 0·54 | 1·34 | 3·19 | 2·04 | 3·04 | 5·30 | 4·68 | 0·65 | 0·44 | 21·66 |

No. 304. GOKAK.

Latitude N. 16° 10′. Longitude E. 74° 52′. Elevation 2,500 feet.

Administration: BOMBAY. Rainfall Province No. XVI.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1862 | P | P | P | P | P | 4·65 | 0·06 | 1·07 | 7·14 | P | P | P | P |
| 1863 | P | P | P | P | P | 1·61 | 0·50 | 0·57 | 0·97 | P | P | P | P |
| 1864 | P | P | P | P | P | 6·30 | 1·75 | 2·32 | 0·66 | P | P | P | P |
| 1865 | P | P | P | P | P | 3·19 | 1·12 | 3·47 | ... | P | P | P | P |
| 1866 | P | P | P | P | P | 1·51 | 3·71 | 0·53 | 1·79 | P | P | P | P |
| 1867 | P | P | P | P | 2·02 | 2·16 | 0·42 | 0·29 | 0·73 | 10·90 | 0·59 | P | P |
| 1868 | P | P | P | P | P | 4·72 | 1·36 | 5·25 | 3·94 | 1·55 | ... | ... | P |
| 1869 | ... | ... | ... | 0·35 | 3·32 | 4·63 | 1·01 | 3·56 | 0·73 | 8·74 | 0·10 | 3·79 | 26·23 |
| 1870 | 0·11 | ... | 0·55 | 0·81 | 0·81 | 0·77 | 1·16 | 3·51 | 6·47 | 7·91 | 0·25 | P | 22·35 |
| 1871 | 0·61 | ... | 0·12 | 0·24 | 1·80 | 1·18 | ... | 1·11 | 2·98 | 6·37 | ... | ... | 14·41 |
| 1872 | ... | ... | ... | 3·47 | 1·12 | 5·65 | 2·52 | 0·84 | 7·50 | 1·60 | 0·30 | 3·86 | 26·86 |
| 1873 | ... | ... | 0·36 | 0·37 | 2·82 | ... | 1·68 | 2·31 | 1·97 | 4·91 | ... | 0·22 | 14·58 |
| 1874 | ... | ... | ... | 1·95 | 3·74 | 5·91 | 3·25 | 1·41 | 11·07 | 4·17 | ... | ... | 31·50 |
| 1875 | ... | ... | 0·36 | 0·32 | 1·82 | 5·80 | 3·35 | 1·98 | 0·96 | 3·41 | 0·06 | 0·19 | 18·25 |
| 1876 | ... | ... | 0·03 | 0·56 | 0·56 | 2·18 | 2·57 | 0·47 | 0·57 | ... | 0·05 | ... | 6·99 |
| 1877 | ... | ... | ... | 0·54 | 0·35 | 6·27 | 0·19 | 2·83 | 9·84 | 10·67 | ... | 2·00 | 32·68 |
| 1878 | ... | ... | ... | 0·50 | 0·70 | 2·21 | 2·63 | 4·30 | 3·49 | 8·56 | 2·15 | ... | 24·54 |
| 1879 | ... | ... | 1·63 | 1·56 | 2·74 | 2·65 | 3·24 | 3·03 | 0·53 | 5·95 | 0·74 | 0·19 | 22·26 |
| 1880 | ... | ... | 0·37 | 0·18 | 2·31 | 2·54 | 1·47 | 0·95 | 1·74 | 10·34 | 1·16 | ... | 21·06 |
| 1881 | ... | ... | ... | 1·13 | 0·28 | 1·53 | 1·82 | 1·39 | 1·07 | 5·18 | 5·95 | ... | 18·35 |
| 1882 | 0·06 | ... | 1·40 | 0·95 | 3·05 | 5·08 | 6·72 | 3·47 | 5·91 | 3·19 | 2·82 | ... | 32·65 |
| 1883 | ... | ... | 0·14 | 2·00 | 0·41 | 3·92 | 2·61 | 5·28 | 0·44 | 6·40 | 1·68 | ... | 22·88 |
| Mean | 0·05 | ... | 0·33 | 1·00 | 1·74 | 3·38 | 1·96 | 2·27 | 3·20 | 5·87 | 0·93 | 0·68 | 21·41 |
| 1884 | 0·24 | ... | 0·07 | 0·62 | 1·15 | 4·63 | 3·78 | 1·62 | 1·98 | 6·08 | 0·41 | 4·22 | 24·80 |
| 1885 | ... | ... | 2·31 | 1·88 | 3·36 | 2·70 | 1·86 | 2·64 | 5·05 | 7·55 | 2·00 | 0·38 | 29·73 |
| 1886 | ... | ... | ... | 0·28 | 2·71 | 4·11 | 3·64 | 2·77 | 3·09 | 12·09 | 0·58 | 1·75 | 31·02 |
| Mean | 0·06 | ... | 0·40 | 0·98 | 1·85 | 3·44 | 2·10 | 2·28 | 3·22 | 6·28 | 0·94 | 0·92 | 22·47 |

No. 305. BELGAUM.

Latitude N. 15° 52′. Longitude E. 74° 42′. Elevation 2,550 feet.

Administration: BOMBAY. Rainfall Province No. XVI.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1841 | ... | ... | ... | 3·10 | ... | 10·90 | 18·50 | 4·90 | 3·50 | 6·78 | 3·78 | ... | 51·46 |
| 1842 | 0·20 | ... | ... | ... | 4·35 | 7·35 | 14·34 | 12·20 | 8·70 | 1·15 | 3·46 | ... | 51·75 |
| 1843 | ... | ... | 3·00 | 5·30 | 3·45 | 4·15 | 18·55 | 11·20 | 5·10 | 5·09 | ... | ... | 55·84 |
| 1844 to 1846 | Not on record. | | | | | | | | | | | | |
| 1847 | ... | 0·04 | 0·39 | 5·84 | 5·14 | 7·85 | 7·90 | 4·65 | 1·04 | 6·49 | 2·42 | ... | 41·67 |

BELGAUM—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 to 1855 | Not on record. | | | | | | | | | | | | |
| 1856 | ... | ... | ... | 1·55 | 10·65 | 11·64 | 12·07 | 6·31 | 2·85 | 2·57 | 0·08 | 0·16 | 47·88 |
| 1857 | ... | ... | 0·40 | 2·44 | 7·69 | 13·10 | 6·52 | 17·48 | 1·17 | 7·09 | 3·13 | ... | 59·02 |
| 1858 | ... | ... | 0·72 | 1·05 | 6·07 | 3·48 | 13·04 | 4·05 | 2·36 | 6·75 | 1·31 | ... | 38·83 |
| 1859 | ... | ... | 0·36 | 2·86 | 2·87 | 4·96 | 22·56 | 6·09 | 5·23 | 3·39 | 1·73 | ... | 50·05 |
| 1860 | ... | ... | 0·09 | 3·37 | 0·92 | 6·72 | 10·19 | 11·63 | 0·09 | 5·16 | ... | ... | 38·17 |
| 1861 | 0·04 | ... | 0·66 | 0·49 | 0·67 | 4·24 | 25·30 | 22·41 | 2·37 | 1·47 | 0·07 | ... | 57·72 |
| 1862 | ... | ... | 0·37 | 0·37 | 1·11 | 17·64 | 8·77 | 10·39 | 5·11 | 6·19 | 0·19 | 0·77 | 50·91 |
| 1863 | ... | ... | 1·59 | 2·62 | ... | 18·56 | ? | 11·02 | 1·46 | 3·44 | ... | 2·88 | ? |
| 1864 | ... | ... | 0·03 | 1·45 | 2·16 | 8·16 | 19·23 | 6·62 | 1·17 | 0·18 | 0·12 | ... | 39·12 |
| 1865 | ... | 0·04 | 0·38 | 4·84 | 2·96 | 3·90 | 14·70 | 13·84 | 0·27 | 4·20 | 0·31 | 0·02 | 45·46 |
| 1866 | ... | ... | 0·02 | 0·03 | 0·53 | 11·37 | 17·64 | 9·16 | 1·11 | 6·38 | ... | 0·06 | 46·30 |
| 1867 | ... | ... | 0·74 | 0·86 | 1·94 | 7·93 | 11·39 | 7·73 | 1·83 | 6·06 | ... | ... | 38·48 |
| 1868 | ... | ... | 0·66 | 2·32 | 5·20 | 15·03 | 10·07 | 13·09 | 1·26 | 2·49 | ... | ... | 50·12 |
| 1869 | ... | ... | ... | 0·69 | 0·64 | 13·98 | 14·27 | 7·67 | 3·13 | 4·69 | 1·78 | 1·78 | 48·63 |
| 1870 | 0·94 | ... | 0·26 | 2·47 | 2·96 | 9·45 | 18·52 | 8·59 | 6·13 | 5·21 | 0·66 | ... | 55·19 |
| 1871 | 0·83 | ... | 0·43 | 1·32 | 1·84 | 8·41 | 8·21 | 6·53 | 1·64 | 5·23 | 1·85 | ... | 36·29 |
| 1872 | ... | ... | 0·12 | 2·21 | 1·05 | 11·30 | 15·08 | 3·61 | 5·67 | 3·47 | 0·04 | 2·74 | 45·29 |
| 1873 | ... | 0·52 | 0·22 | 2·04 | 5·42 | 4·15 | 14·36 | 4·77 | 4·79 | 3·48 | 0·58 | ... | 40·33 |
| 1874 | ... | ... | ... | 0·59 | 5·03 | 12·61 | 15·25 | 6·24 | 9·25 | 6·75 | 0·77 | ... | 56·49 |
| 1875 | ... | ... | 0·80 | 3·64 | 1·37 | 15·37 | 24·97 | 8·29 | 3·30 | 4·74 | 1·11 | 0·02 | 63·61 |
| 1876 | ... | ... | 2·44 | 1·19 | ... | 6·01 | 21·11 | 2·25 | 1·94 | 0·97 | ... | ... | 35·91 |
| 1877 | ... | ... | ... | 3·66 | 1·23 | 16·43 | 3·12 | 7·69 | 6·63 | 7·42 | 0·04 | 0·60 | 46·82 |
| 1878 | ... | ... | ... | 2·63 | 1·20 | 5·60 | 12·09 | 14·34 | 6·10 | 6·64 | 5·37 | ... | 53·97 |
| 1879 | ... | 0·05 | ... | 0·64 | 5·35 | 13·40 | 8·66 | 17·13 | 1·40 | 3·81 | 4·40 | 0·07 | 54·91 |
| 1880 | ... | ... | 1·05 | 1·17 | 1·51 | 5·59 | 10·30 | 3·59 | 2·89 | 8·10 | 0·97 | ... | 35·17 |
| 1881 | ... | ... | ... | 0·51 | 1·26 | 0·86 | 19·73 | 11·97 | 4·11 | 1·44 | 4·17 | ... | 44·05 |
| 1882 | 0·11 | ... | 1·33 | 2·32 | 2·90 | 16·95 | 32·15 | 6·25 | 8·72 | 2·27 | 0·29 | 0·13 | 73·42 |
| 1883 | 0·05 | ... | 0·01 | 1·70 | 3·07 | 10·04 | 17·98 | 5·35 | 6·67 | 8·05 | 1·10 | 0·19 | 54·21 |
| Mean | 0·07 | 0·02 | 0·50 | 2·04 | 2·83 | 9·60 | 15·05 | 8·97 | 3·66 | 4·60 | 1·24 | 0·29 | 48·87 |
| 1884 | 0·19 | 0·07 | 0·19 | 1·50 | 1·22 | 2·44 | 22·43 | 12·57 | 4·72 | 4·40 | 0·27 | 0·84 | 50·84 |
| 1885 | ... | ... | 0·40 | 1·32 | 1·41 | 4·48 | 14·37 | 12·63 | 5·10 | 8·09 | 2·34 | 0·14 | 50·28 |
| 1886 | ... | ... | 0·01 | 0·91 | 5·61 | 10·49 | 12·63 | 4·25 | 0·84 | 5·23 | 0·71 | 0·24 | 40·92 |
| Mean | 0·07 | 0·02 | 0·47 | 1·97 | 2·82 | 9·27 | 15·18 | 9·04 | 3·65 | 4·71 | 1·23 | 0·30 | 48·73 |

No. 306. NARGUND.

Latitude N. 15° 43′. Longitude E. 75° 26′. Elevation 2,100 feet.

Administration: BOMBAY. Rainfall Province No. XVI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | ? | ? | ? | ? | ? | 6·18 | 0·51 | 1·97 | 4·19 | ? | ? | ? | ? |
| 1863 | ? | ? | ? | ? | | 2·05 | 1·07 | 1·27 | 2·08 | ? | ? | ? | ? |

NARGUND—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1864 | ? | ? | ? | ? | ? | 5·80 | 1·39 | 8·33 | 1·88 | ? | ? | ? | ? |
| 1865 | ? | ? | | ? | ? | 1·75 | 1·08 | 2·70 | ... | ? | ? | ? | ? |
| 1866 | ? | ? | ? | ? | ? | 0·54 | 4·15 | 0·45 | 1·37 | ? | ? | ? | ? |
| 1867 | ? | ? | ? | ? | ? | 4·06 | 0·58 | 0·60 | 4·44 | 9·01 | ... | ? | ? |
| 1868 | ? | ? | ? | ? | ? | 2·21 | 2·76 | 2·50 | 3·41 | 3·00 | ... | ... | ? |
| 1869 | ... | ... | ... | ... | 2·99 | 6·23 | 0·34 | 4·99 | 4·57 | 4·92 | ... | 2·56 | 26·60 |
| 1870 | 0·75 | ... | 0·75 | 0·75 | 2·95 | 6·97 | 1·91 | 3·98 | 2·40 | 4·96 | 0·75 | ? | 26·17? |
| 1871 | 1·28 | ... | ... | 1·78 | 3·17 | 0·75 | 1·18 | 3·16 | 3·16 | 6·57 | 0·50 | ... | 21·55 |
| 1872 | ... | ... | ... | 0·31 | 1·39 | ? | ? | ? | ? | ? | ? | ? | ? |
| 1873 | Not on record. | | | | | | | | | | | | |
| 1874 | ... | ... | ... | ... | ... | 3·45 | 3·04 | 0·82 | 12·77 | 5·57 | 0·20 | ... | 25·85 |
| 1875 | ... | ... | 0·84 | 0·14 | 3·57 | 2·02 | 2·03 | 5·22 | 2·49 | 3·24 | ... | ... | 19·55 |
| 1876 | ... | ... | 0·20 | 0·54 | 0·20 | 2·50 | 1·58 | 0·77 | 2·41 | ... | 0·10 | ... | 8·30 |
| 1877 | ... | ... | ... | 0·56 | 1·96 | 3·13 | ... | 1·55 | 12·11 | 9·06 | ... | 0·90 | 29·27 |
| 1878 | ... | ... | ... | 1·28 | 1·50 | 1·60 | 4·64 | 5·70 | 6·79 | 12·71 | 0·92 | ... | 35·14 |
| 1879 | ... | 1·85 | ... | ... | 3·50 | 3·13 | 5·92 | 2·29 | 3·36 | 4·56 | 1·12 | ... | 25·73 |
| 1880 | ... | ... | 0·57 | 1·21 | 1·80 | 2·63 | 1·47 | 0·78 | 3·30 | 8·32 | 0·76 | ... | 20·84 |
| 1881 | ... | ... | 0·91 | 1·85 | 1·03 | 0·53 | 0·46 | 0·72 | 4·12 | 3·34 | 3·70 | ... | 16·66 |
| 1882 | 0·45 | ... | ... | 0·70 | 3·29 | 3·15 | 5·18 | 9·19 | 5·62 | 1·43 | 1·72 | ... | 30·64 |
| 1883 | ... | ... | ... | 2·69 | 0·73 | 0·59 | 1·61 | 6·54 | ... | 6·13 | 0·56 | 0·95 | 18·90 |
| Mean | 0·18 | 0·13 | 0·23 | 0·84 | 2·01 | 2·96 | 2·05 | 3·17 | 4·02 | 5·52 | 0·69 | 0·27 | 22·07 |
| 1884 | 0·67 | ... | ... | 0·92 | ... | 1·06 | 1·22 | 0·84 | 0·39 | 7·08 | ... | 1·04 | 13·22 |
| 1885 | ... | ... | 0·28 | ... | 2·09 | 1·10 | 1·29 | 0·50 | 9·32 | 13·04 | 0·60 | 0·30 | 29·52 |
| 1886 | ... | ... | ... | 1·31 | 3·31 | 5·36 | 1·89 | 3·15 | 3·81 | 10·33 | 0·10 | 1·32 | 30·58 |
| Mean | 0·19 | 0·11 | 0·21 | 0·83 | 2·03 | 2·90 | 1·97 | 2·95 | 4·09 | 6·29 | 0·61 | 0·39 | 22·57 |

No. 307. DHARWAR.

Latitude N. 15° 27′ Longitude E. 75° 3′. Elevation 2,586 feet.

Administration : BOMBAY. Rainfall Province No. XVI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1844 | ... | ... | ... | 2·32 | 2·20 | 6·59 | 7·32 | 3·79 | 0·72 | 3·32 | ... | 0·43 | 26·73 |
| 1845 | ... | 0·06 | 1·70 | 1·02 | 3·75 | 6·98 | 7·21 | 6·94 | 4·74 | 6·41 | 0·69 | ... | 39·50 |
| 1846 | ... | ... | ... | ... | 1·50 | 8·14 | 12·06 | 12·21 | 3·63 | 2·15 | 7·79 | 0·40 | 47·88 |
| 1847 | ... | ... | 1·15 | 0·54 | 4·15 | 2·87 | 4·39 | 5·90 | 3·56 | 2·26 | 8·80 | ... | 33·62 |
| 1848 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | ... | ... | ... | 0·81 | 12·17 | 3·74 | 9·10 | 12·36 | 3·45 | 1·60 | 0·35 | ... | 33·58 |
| 1862 | 0·25 | ... | 0·93 | 1·59 | 1·73 | 6·67 | 3·42 | 4·56 | 4·42 | 10·30 | 1·45 | 0·07 | 35·39 |
| 1863 | ? | ? | ? | ? | ? | 8·12 | 6·98 | 2·69 | 2·00 | ? | ? | ? | ? |
| 1864 | ? | ? | ? | ? | ? | 8·62 | 3·86 | 8·93 | 1·94 | ? | ? | ? | ? |
| 1865 | ? | ? | ? | ? | ? | 7·20 | 5·75 | 4·53 | 0·46 | ? | ? | ? | ? |
| 1866 | Not on record. | | | | | | | | | | | | |

DHARWAR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ? | ? | ? | ? | ? | 7·20 | 4·19 | 3·57 | 3·67 | 10·15 | ? | ? | ? |
| 1868 | ? | ? | ? | ? | ? | 8·30 | 4·40 | 4·23 | 2·95 | 4·57 | 0·14 | ? | ? |
| 1869 | ... | ... | ... | 0·62 | 7·55 | 4·25 | 4·47 | 2·86 | 1·01 | 5·53 | 0·95 | ? | 27·24 ? |
| 1870 | 0·38 | ... | 0·22 | 1·29 | 0·55 | 5·45 | 6·64 | 5·53 | 3·07 | 8·19 | 0·92 | ? | 32·24 ? |
| 1871 | 1·51 | ... | 0·12 | 2·96 | 3·45 | 3·28 | 2·77 | 4·03 | 4·80 | 5·96 | 1·23 | ... | 30·11 |
| 1872 | ... | ... | ... | 0·82 | 0·41 | 6·44 | 6·90 | 1·25 | 3·65 | 6·78 | 0·08 | 3·83 | 30·16 |
| 1873 | ... | 0·23 | ... | 2·01 | 3·12 | 0·95 | 4·89 | 2·94 | 2·06 | 9·17 | 1·52 | ... | 26·89 |
| 1874 | ... | 0·04 | ... | 2·49 | 7·73 | ? | ? | ? | ? | ? | ? | ? | ? |
| 1875 | Not on record. | | | | | | | | | | | | |
| 1876 | ... | ... | ... | ... | ... | 2·06 | 8·92 | 1·48 | 1·84 | 1·62 | 0·29 | ... | 16·21 |
| 1877 | ... | ... | ... | 2·17 | 3·06 | 4·89 | 0·76 | 3·15 | 10·95 | 8·58 | 0·02 | 1·91 | 35·49 |
| 1878 | ... | ... | ... | 2·00 | 1·80 | 3·27 | 4·65 | 9·37 | 6·43 | 11·13 | 5·01 | ... | 43·66 |
| 1879 | ... | 0·02 | 0·32 | 1·36 | 4·20 | 5·19 | 5·72 | 5·46 | 0·64 | 6·30 | 3·55 | 0·06 | 32·82 |
| 1880 | ... | ... | 1·13 | 1·49 | 1·29 | 4·67 | 5·70 | 3·80 | 2·19 | 7·69 | 1·33 | 0·12 | 29·41 |
| 1881 | ... | ... | 0·18 | 1·69 | 2·01 | 3·64 | 4·77 | 4·22 | 1·77 | 2·82 | 7·47 | ... | 28·57 |
| 1882 | 0·91 | ... | 0·26 | 0·47 | 4·77 | 8·69 | 18·77 | 4·28 | 6·83 | 2·39 | 1·96 | ... | 49·33 |
| 1883 | ... | ... | 0·43 | 1·48 | 2·42 | 3·51 | 7·69 | 5·13 | 2·89 | 4·87 | 1·29 | ... | 29·61 |
| Mean | 0·15 | 0·02 | 0·32 | 1·36 | 2·89 | 5·45 | 6·31 | 5·13 | 3·32 | 5·80 | 2·24 | 0·40 | 33·39 |
| 1884 | ... | ... | 0·53 | 1·33 | 0·48 | 2·21 | 7·09 | 6·23 | 1·73 | 3·67 | ... | 2·67 | 25·94 |
| 1885 | ... | ... | 0·42 | 0·26 | 2·02 | 4·16 | 4·92 | 3·81 | 4·04 | 7·97 | 0·72 | 0·51 | 28·83 |
| 1886 | ... | ... | ... | 0·41 | 5·40 | 4·62 | 5·32 | 1·56 | 3·90 | 8·40 | 0·92 | 0·90 | 31·43 |
| Mean | 0·13 | 0·02 | 0·32 | 1·27 | 2·86 | 5·25 | 6·25 | 4·99 | 3·31 | 6·17 | 2·02 | 0·55 | 33·14 |

No. 308. HUBLI.

Latitude N. 15° 20′. Longitude E. 75° 12′. Elevation 2,061 feet.

Administration: BOMBAY. Rainfall Province No. XVI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | ? | ? | ? | ? | ? | 7·66 | 2·16 | 3·46 | ... | ? | ? | ? | ? |
| 1863 | ? | ? | ? | ? | ? | 3·67 | 3·56 | 1·86 | 0·83 | ? | ? | ? | ? |
| 1864 | ? | ? | ? | ? | ? | 4·06 | 4·40 | 5·85 | 3·19 | ? | ? | ? | ? |
| 1865 | ? | ? | ? | ? | ? | 1·23 | 4·19 | 2·25 | 0·04 | ? | ? | ? | ? |
| 1866 | ? | ? | ? | ? | ? | 4·15 | 6·15 | 3·33 | 2·47 | ? | ? | ? | ? |
| 1867 | ? | ? | ? | ? | ... | 4·27 | 3·69 | 2·30 | 3·53 | 4·16 | ... | ? | ? |
| 1868 | ? | ? | ? | ? | ? | 7·93 | 3·39 | 4·16 | 2·78 | 3·56 | 0·06 | ... | ? |
| 1869 | ... | ... | ... | 0·67 | 1·94 | 3·75 | 2·90 | 3·54 | 0·62 | 6·61 | 0·72 | 0·44 | 22·19 |
| 1870 | ... | ... | ... | 2·24 | 0·79 | 2·33 | 5·09 | 2·70 | 4·75 | 10·49 | 1·05 | ? | 29·44 ? |
| 1871 | 0·70 | ... | 0·45 | 1·14 | 9·70 | 2·54 | 1·84 | 2·79 | 3·23 | 5·07 | 1·03 | ... | 28·49 |
| 1872 | ... | ... | ... | 1·53 | 1·32 | ? | ? | ? | ? | ? | ? | ? | ? |
| 1873 | Not on record. | | | | | | | | | | | | |
| 1874 | ... | ... | ... | ... | ... | 5·73 | 5·19 | 0·96 | 9·19 | 12·65 | 1·45 | 0·55 | 35·72 |
| 1875 | ... | ... | 0·39 | ... | 1·56 | 3·49 | 5·78 | 2·90 | 1·10 | 2·69 | 0·59 | ... | 18·42 |
| 1876 | ... | ... | 0·58 | 1·74 | 1·98 | 1·58 | 7·00 | 0·81 | 0·53 | 0·40 | ... | ... | 14·62 |

HUBLI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | ... | ... | 0·05 | 2·97 | 1·30 | 8·83 | 0·95 | 2·80 | 13·37 | 7·45 | ... | 1·90 | 39·62 |
| 1878 | ... | ... | ... | 2·67 | 1·25 | 2·82 | 7·01 | 8·04 | 6·33 | 6·70 | 1·30 | ... | 36·10 |
| 1879 | ... | ... | 0·06 | 0·58 | 5·30 | 7·32 | 4·16 | 4·90 | 0·38 | 4·87 | 2·33 | 0·12 | 30·02 |
| 1880 | ... | ... | 1·15 | 1·78 | 1·79 | 4·60 | 2·93 | 2·13 | 3·06 | 8·27 | 0·69 | 0·03 | 26·43 |
| 1881 | ... | ... | 0·05 | 1·70 | 3·92 | 2·56 | 2·41 | 1·93 | 1·74 | 2·73 | 3·66 | ... | 20·70 |
| 1882 | ... | ... | 0·73 | 1·46 | 3·92 | 6·20 | 10·15 | 4·21 | 4·43 | 3·88 | 2·44 | ... | 37·42 |
| 1883 | ... | ... | 0·52 | 2·45 | 2·25 | 2·94 | 5·17 | 4·51 | 2·65 | 4·45 | 0·42 | 0·04 | 25·40 |
| Mean | 0·05 | ... | 0·28 | 1·50 | 2·47 | 4·38 | 4·41 | 3·27 | 3·21 | 5·59 | 1·05 | 0·24 | 26·45 |
| 1884 | 0·42 | ... | ... | 1·63 | 0·50 | 1·68 | 6·10 | 3·87 | 1·37 | 2·07 | ... | 0·54 | 18·18 |
| 1885 | ... | ... | 0·72 | ... | 2·22 | 3·78 | 3·41 | 3·95 | 1·95 | 7·54 | 2·17 | 0·85 | 26·59 |
| 1886 | ... | ... | ... | 0·88 | 3·84 | 2·21 | 3·13 | 1·40 | 3·76 | 7·86 | 0·48 | 0·30 | 23·86 |
| Mean | 0·07 | ... | 0·28 | 1·38 | 2·42 | 4·14 | 4·38 | 3·25 | 3·10 | 5·63 | 1·02 | 0·30 | 25·97 |

No. 309. KALGHATGI.

Latitude N. 15° 10′. Longitude E. 75° 1′. Elevation 2,100 feet.

Administration: BOMBAY. Rainfall Province No. XVI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | ? | ? | ? | ? | ? | 8·96 | 4·98 | 5·99 | 4·39 | ? | ? | ? | ? |
| 1863 | ? | ? | ? | ? | ? | 5·29 | 6·14 | 2·94 | 1·08 | ? | ? | ? | ? |
| 1864 | ? | ? | ? | ? | ? | 7·94 | 7·86 | 2·93 | 4·25 | ? | ? | ? | ? |
| 1865 | ? | ? | ? | ? | ? | 1·83 | 3·46 | 3·96 | 0·17 | ? | ? | ? | ? |
| 1866 | ? | ? | ? | ? | ? | 2·16 | 10·39 | 4·82 | 2·37 | ? | ? | ? | ? |
| 1867 | ? | ? | ? | ? | ... | 4·69 | 4·74 | 4·15 | 1·03 | 10·16 | ... | ? | ? |
| 1868 | ? | ? | ? | ? | ? | 9·88 | 6·55 | 4·10 | 2·55 | 2·75 | ... | ... | ? |
| 1869 | ... | ... | ... | ... | 1·75 | 4·70 | 6·31 | 4·12 | 3·66 | 6·68 | 0·36 | 3·06 | 30·64 |
| 1870 | 0·28 | ... | ... | 1·05 | 1·27 | 5·51 | 9·90 | 6·68 | 5·40 | 8·42 | 2·35 | ? | 40·86 ? |
| 1871 | 0·55 | ... | ... | ... | 3·33 | 2·91 | 3·66 | 3·36 | 3·30 | 1·83 | 0·08 | ... | 19·02 |
| 1872 | ... | ... | ... | 2·32 | 1·58 | ? | ? | ? | ? | ? | ? | ? | ? |
| 1873 | Not on record. | | | | | | | | | | | | |
| 1874 | ... | ... | ... | ... | ... | 10·20 | 7·34 | 3·39 | 11·06 | 4·59 | 0·55 | ... | 37·13 |
| 1875 | ... | ... | 0·68 | 1·30 | 0·25 | 7·62 | 9·89 | 3·57 | 2·83 | 4·23 | 0·35 | ... | 30·72 |
| 1876 | ... | ... | 1·53 | 1·21 | 1·05 | 2·80 | 10·01 | 1·66 | 1·60 | 0·57 | ... | ... | 20·43 |
| 1877 | ... | ... | ... | 0·66 | 1·89 | 3·14 | 1·33 | 2·85 | 5·26 | 10·29 | ... | 1·17 | 26·59 |
| 1878 | ... | ... | ... | 2·24 | 0·98 | 3·47 | 4·97 | 11·66 | 5·74 | 4·53 | 4·34 | 0·10 | 38·03 |
| 1879 | ... | ... | ... | 0·60 | 3·23 | 6·19 | 3·86 | 8·31 | 0·70 | 1·25 | 0·15 | ... | 24·29 |
| 1880 | ... | ... | 1·00 | 1·22 | 0·64 | 9·46 | 8·57 | 2·56 | 4·41 | 8·25 | ... | ... | 36·11 |
| 1881 | ... | ... | ... | 1·65 | 2·67 | 0·78 | 5·35 | 6·22 | 1·94 | 1·98 | 1·71 | ... | 22·30 |
| 1882 | ... | ... | 0·70 | 0·52 | 4·41 | 6·02 | 18·21 | 4·13 | 4·64 | 3·15 | 1·31 | ... | 43·09 |
| 1883 | ... | ... | ... | 4·38 | 1·40 | 5·39 | 8·81 | 2·28 | 4·33 | 4·76 | 0·67 | ... | 32·02 |
| Mean | 0·06 | ... | 0·28 | 1·23 | 1·63 | 5·45 | 7·12 | 4·48 | 3·54 | 4·90 | 0·79 | 0·33 | 29·81 |

KALGHATGI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 0·23 | ... | ... | 1·57 | ... | 4·82 | 8·66 | 7·89 | 2·03 | 2·35 | ... | 0·12 | 27·67 |
| 1885 | ... | ... | ... | 0·21 | 2·20 | 5·58 | 6·73 | 4·90 | 2·44 | 4·55 | 0·41 | 0·04 | 27·06 |
| 1886 | ... | ... | ... | 0·98 | 5·91 | 3·05 | 10·19 | 2·52 | 3·92 | 6·69 | 0·35 | ... | 33·61 |
| Mean | 0·06 | ... | 0·23 | 1·17 | 1·81 | 5·32 | 7·30 | 4·56 | 3·44 | 4·84 | 0·70 | 0·28 | 29·71 |

No. 310. MANDARGI.

Latitude N. 15° 12′. Longitude E. 75° 55′. Elevation 1,950 feet.

Administration: BOMBAY. Rainfall Province No. XVI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1874 | ... | ... | ... | ... | ... | 1·61 | 7·05 | 11·73 | 11·89 | 10·31 | 1·46 | ... | 34·05 |
| 1875 | ... | ... | 0·55 | 0·75 | 0·62 | 0·75 | 1·68 | 1·29 | 1·95 | 2·54 | ... | ... | 10·13 |
| 1876 | ... | ... | 0·10 | 0·83 | 0·06 | 0·29 | 0·88 | 0·21 | 0·53 | 0·06 | ... | ... | 3·06 |
| 1877 | ... | ... | ... | 3·15 | 1·08 | 3·50 | 0·58 | 0·94 | 7·70 | 4·06 | ... | 0·17 | 21·18 |
| 1878 | ... | ... | ... | 0·98 | 2·32 | 1·72 | 3·39 | 4·48 | 5·03 | 6·21 | ... | ... | 24·13 |
| 1879 | ... | ... | ... | ... | 6·27 | 3·13 | 3·67 | 2·56 | 1·05 | 3·38 | 0·66 | ... | 20·72 |
| 1880 | ... | ... | 0·70 | 0·10 | 0·74 | 3·62 | 1·91 | 0·66 | 2·92 | 5·98 | 2·20 | ... | 18·83 |
| 1881 | ... | ... | 0·63 | 0·65 | 3·22 | 1·06 | 0·14 | 1·00 | 1·44 | 3·65 | 5·10 | ... | 16·89 |
| 1882 | 4·06 | ... | 0·18 | ... | 2·57 | 2·89 | 2·23 | 6·95 | 3·89 | 3·20 | 2·56 | ... | 28·53 |
| 1883 | ... | ... | ... | 0·57 | 0·60 | 0·10 | 0·58 | 3·25 | 0·52 | 3·99 | 0·80 | 0·10 | 10·51 |
| Mean | 0·41 | ... | 0·22 | 0·70 | 1·76 | 1·87 | 2·21 | 2·31 | 3·69 | 4·34 | 1·28 | 0·03 | 18·82 |
| 1884 | ... | ... | ... | ... | 0·35 | 2·82 | 0·79 | 0·89 | 1·26 | 3·53 | ... | 0·38 | 10·02 |
| 1885 | ... | ... | 0·65 | 0·10 | 1·31 | 1·70 | 1·38 | 0·08 | 7·11 | 7·19 | 0·66 | 0·58 | 20·76 |
| 1886 | ... | ... | ... | 0·45 | 4·40 | 2·55 | 1·30 | 4·14 | 2·99 | 2·88 | 0·54 | 0·26 | 19·51 |
| Mean | 0·31 | ... | 0·22 | 0·58 | 1·82 | 1·98 | 1·97 | 2·17 | 3·71 | 4·38 | 1·07 | 0·11 | 18·32 |

No. 311. AURANGABAD.

Latitude N. 19° 54′. Longitude E. 75° 22′. Elevation 1,700 feet.

Administration: HYDERABAD. Rainfall Province No. XIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | ... | ... | ... | ... | 0·02 | 5·93 | 6·20 | 11·33 | 15·29 | ... | ... | 1·47 | 40·24 |
| 1876 | 0·35 | ... | ... | ... | ... | 5·64 | 8·06 | 3·77 | 1·93 | ... | ... | ... | 19·75 |
| 1877 | ... | ... | ... | ... | ... | 5·92 | 1·39 | 2·20 | 3·56 | 2·17 | 0·65 | 0·25 | 16·14 |
| 1878 | ... | ... | ... | ... | ... | 4·00 | 6·17 | 11·68 | 5·55 | 3·63 | ... | ... | 31·03 |
| 1879 | ... | 0·23 | ... | ... | 4·91 | 6·13 | 7·49 | 12·30 | 4·94 | 2·15 | ... | ... | 38·15 |

AURANGABAD—*continued.*

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1880 | ... | ... | 0·18 | ... | 1·50 | 4·17 | 6·61 | 2·62 | 8·91 | 4·65 | 2·14 | ... | 30·78 |
| 1881 | ... | 0·07 | ... | 0·42 | 0·35 | 5·14 | 4·66 | 5·29 | 2·14 | 1·46 | 1·44 | 0·16 | 21·13 |
| 1882 | 0·52 | ... | ... | 0·05 | 0·49 | 14·28 | 13·63 | 2·83 | 14·72 | 0·16 | 1·20 | 0·12 | 48·00 |
| 1883 | ... | ... | 0·02 | ... | 0·85 | 10·14 | 4·74 | 9·22 | 8·80 | 8·13 | ... | ... | 41·90 |
| Mean | 0·10 | 0·03 | 0·02 | 0·05 | 0·90 | 6·82 | 6·55 | 6·80 | 7·32 | 2·48 | 0·60 | 0·22 | 31·89 |
| 1884 | 0·21 | ... | ... | 0·52 | ... | 4·31 | 7·03 | 2·32 | 12·37 | 2·04 | ... | 3·58 | 32·38 |
| 1885 | ... | ... | 0·32 | 1·04 | 1·47 | 0·90 | 4·63 | 1·86 | 4·72 | 4·02 | 0·64 | 0·92 | 20·52 |
| 1886 | ... | ... | ... | ... | 0·35 | 11·86 | 13·56 | 4·84 | 4·19 | 7·80 | 0·03 | 5·06 | 47·69 |
| Mean | 0·09 | 0·03 | 0·04 | 0·17 | 0·83 | 6·54 | 7·01 | 5·86 | 7·26 | 3·82 | 0·51 | 0·96 | 32·32 |

No. 312. HINGOLI.

Latitude N. 19° 43′. Longitude E. 77° 11′. Elevation 1,600 feet.

Administration : HYDERABAD. Rainfall Province No. XIII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1864 | ... | ... | ... | 1·60 | 1·19 | 4·20 | 9·36 | 10·74 | 2·40 | ... | 1·81 | ... | 31·30 |
| 1865 | 3·02 | 0·20 | 0·75 | 0·35 | 0·03 | 6·04 | 13·80 | 11·59 | 0·49 | 0·59 | 0·60 | ... | 37·46 |
| 1866 | ... | ... | 0·16 | ... | 1·46 | 2·13 | 13·17 | 11·23 | 1·74 | 0·87 | ... | ... | 30·76 |
| 1867 | ... | ... | ... | 0·20 | 0·14 | 7·30 | 4·94 | 11·57 | 6·43 | 5·59 | ... | ... | 36·17 |
| 1868 | 2·40 | ... | 0·23 | 0·27 | 0·08 | 10·65 | 13·89 | 5·35 | 2·36 | ... | ... | ... | 35·23 |
| 1869 | ... | ... | 0·65 | ... | 1·39 | 3·23 | 3·37 | 13·29 | 7·98 | 6·15 | 0·53 | 3·46 | 40·05 |
| 1870 | 2·75 | ... | 1·17 | 0·31 | ... | 11·78 | 16·75 | 9·07 | 5·64 | 3·89 | 0·22 | ... | 51·58 |
| 1871 | 0·40 | ... | ... | 0·55 | 0·47 | 2·97 | 2·94 | 0·96 | 2·98 | ... | 0·18 | ... | 11·45 |
| 1872 | ... | ... | ... | 1·90 | ... | 7·36 | 14·20 | 9·66 | 12·60 | 1·76 | ... | 0·73 | 48·21 |
| 1873 | 0·36 | 0·21 | ... | 1·30 | 2·29 | 4·33 | 4·24 | 11·20 | 12·05 | ... | 0·46 | ... | 36·44 |
| 1874 | ... | ... | ... | ... | 0·33 | 4·31 | 16·62 | 2·32 | 8·90 | 0·44 | ... | ... | 32·92 |
| 1875 | ... | ... | ... | 0·27 | 2·79 | 10·09 | 11·25 | 4·34 | 15·30 | 5·53 | ... | 0·40 | 49·97 |
| 1876 | ... | ... | 0·14 | ... | ... | 3·85 | 6·86 | 11·41 | 2·33 | 1·47 | ... | ... | 26·06 |
| 1877 | 1·04 | 1·17 | 0·79 | 1·06 | 0·19 | 3·78 | 3·51 | 2·77 | 4·34 | 2·70 | ... | 0·25 | 21·60 |
| 1878 | ... | ... | 0·25 | 1·74 | 0·29 | 4·65 | 16·79 | 12·69 | 12·24 | 1·59 | 0·18 | ... | 50·42 |
| 1879 | ... | 0·34 | ... | ... | 3·06 | 13·88 | 5·62 | 10·85 | 14·00 | 3·33 | ... | ... | 51·08 |
| 1880 | ... | ... | ... | ... | 0·34 | 5·61 | 11·45 | 5·39 | 6·92 | 0·66 | 3·27 | ... | 33·64 |
| 1881 | ... | ... | 0·50 | ... | 0·31 | 7·94 | 5·16 | 8·24 | 7·06 | 1·99 | 6·31 | .... | 37·51 |
| 1882 | ... | ... | 0·14 | 0·05 | 0·09 | 7·94 | 16·82 | 5·17 | 5·81 | ... | 1·08 | ... | 37·10 |
| 1883 | ... | ... | 0·04 | 0·02 | 0·61 | 12·45 | 9·06 | 11·40 | 16·22 | 4·95 | 0·48 | ... | 55·23 |
| Mean | 0·50 | 0·10 | 0·24 | 0·48 | 0·75 | 6·72 | 9·99 | 8·46 | 7·39 | 2·08 | 0·76 | 0·24 | 37·71 |
| 1884 | 0·10 | 0·11 | 0·05 | 0·87 | 0·10 | 3·70 | 19·37 | 7·78 | 13·01 | 3·06 | ... | 4·75 | 52·90 |
| 1885 | ... | ... | ... | 0·62 | 0·66 | 5·75 | 8·32 | 3·29 | 4·88 | 2·13 | 0·33 | 3·11 | 29·09 |
| 1886 | ... | ... | ... | 0·34 | 2·82 | 14·66 | 11·33 | 4·97 | 4·16 | 9·35 | ... | 0·15 | 47·78 |
| Mean | 0·44 | 0·09 | 0·21 | 0·50 | 0·81 | 6·90 | 10·38 | 8·06 | 7·38 | 2·44 | 0·67 | 0·56 | 38·44 |

No. 313. PARBHANI.

Latitude N. 19° 17′. Longitude E. 76° 49′. Elevation 1,250 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | ... | ... | ... | 2·87 | 5·91 | 10·85 | 2·51 | 1·32 | ... | .... | 23·46 |
| 1877 | ... | ... | ... | ... | ... | 3·05 | 2·21 | 2·99 | 5·05 | 2·85 | ... | 0·11 | 16·26 |
| 1878 | ... | ... | 0·22 | 1·51 | 0·49 | 4·68 | 16·09 | 12·71 | 11·12 | 1·43 | 0·04 | ... | 48·29 |
| 1879 | ... | ... | ... | ... | ... | 9·47 | 11·50 | 12·93 | 6·02 | 4·02 | 0·46 | ... | 44·40 |
| 1880 | ... | ... | 0·06 | 0·06 | 0·52 | 6·50 | 7·98 | 2·89 | 15·54 | 2·28 | 1·19 | ... | 37·02 |
| 1881 | ... | ... | 0·85 | 0·05 | 0·25 | 5·98 | 5·30 | 6·07 | 7·15 | 1·33 | 3·15 | ... | 30·13 |
| 1882 | 0·15 | ... | ... | ... | ... | 7·79 | 7·34 | 5·29 | 7·33 | ... | 1·93 | ... | 29·83 |
| 1883 | ... | ... | .... | .... | 0·22 | 11·54 | 3·12 | 9·19 | 14·97 | 1·82 | 0·58 | ... | 41·44 |
| Mean | 0·02 | ... | 0·14 | 0·20 | 0·18 | 6·49 | 7·43 | 7·86 | 8·71 | 1·88 | 0·92 | 0·01 | 33·84 |
| 1884 | 0·26 | ... | 0·01 | 0·05 | ... | 2·65 | 11·26 | 3·66 | 9·26 | 4·62 | ... | 3·11 | 34·88 |
| 1885 | ... | ... | 0·11 | 1·40 | 2·50 | 4·28 | 3·16 | 3·78 | 9·58 | 2·57 | ... | 2·08 | 29·46 |
| 1886 | ... | ... | ... | ... | 5·64 | 6·25 | 7·41 | 6·57 | 2·51 | 9·71 | 0·24 | 0·14 | 38·47 |
| Mean | 0·04 | ... | 0·11 | 0·28 | 0·87 | 5·91 | 7·39 | 6·99 | 8·28 | 2·90 | 0·69 | 0·49 | 33·95 |

No. 314. BHEER.

Latitude N. 19° 0′. Longitude E. 75° 49′. Elevation 2,000 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | ... | ... | 0·05 | 3·96 | 8·01 | 3·40 | 2·34 | 0·18 | ... | ... | 17·94 |
| 1877 | 2·00 | 0·22 | ... | ... | ... | 1·99 | 3·03 | 3·60 | 7·27 | 5·68 | 1·90 | 0·55 | 26·24 |
| 1878 | ... | ... | ... | 1·71 | 0·35 | 1·16 | 4·70 | 12·47 | 9·31 | 4·54 | 0·14 | ... | 34·38 |
| 1879 | ... | ... | ... | ... | ... | 6·04 | 9·47 | 6·74 | 1·59 | 3·71 | 0·88 | ... | 28·43 |
| 1880 | ... | ... | 0·11 | ... | 0·92 | 4·08 | 5·22 | 1·32 | 11·66 | 1·72 | 1·54 | ... | 26·57 |
| 1881 | ... | ... | 0·85 | ... | 1·09 | 4·11 | 3·83 | 3·97 | 12·01 | 1·19 | 3·00 | ... | 30·05 |
| 1882 | ... | ... | ... | ... | ... | 14·36 | 4·50 | 1·85 | 10·09 | ... | 1·30 | ... | 32·10 |
| 1883 | ... | ... | ... | ... | 0·56 | 12·38 | 5·24 | 14·57 | 15·38 | 1·32 | ... | ... | 49·45 |
| Mean | 0·25 | 0·03 | 0·12 | 0·21 | 0·37 | 6·01 | 5·50 | 5·99 | 8·71 | 2·29 | 1·10 | 0·07 | 30·65 |
| 1884 | ... | ... | ... | 1·03 | ... | 1·51 | 4·27 | 3·87 | 2·32 | 2·54 | ... | 4·37 | 19·91 |
| 1885 | ... | ... | 0·50 | 0·38 | 0·12 | ... | 3·90 | 6·54 | 10·63 | ... | 2·08 | 2·00 | 26·15 |
| 1886 | ... | ... | ... | ... | 0·40 | 9·57 | 6·27 | 4·33 | 3·58 | 10·69 | 0·43 | 3·83 | 39·10 |
| Mean | 0·18 | 0·02 | 0·13 | 0·28 | 0·32 | 5·38 | 5·31 | 5·70 | 7·83 | 2·87 | 1·02 | 0·98 | 30·02 |

No. 315. NANDAIR.

Latitude N. 19° 9′. Longitude E. 77° 22′. Elevation 1,276 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1876 | ... | ... | ... | ... | ... | 4·03 | 5·61 | 9·71 | 3·68 | ... | ... | ... | 23·03 |
| 1877 | 1·72 | 0·02 | ... | 1·63 | 2·30 | 4·74 | 5·29 | 3·77 | 6·37 | 3·28 | ... | 4·53 | 33·65 |
| 1878 | ... | ... | 0·52 | 0·65 | 0·05 | 4·54 | 9·74 | 14·91 | 5·17 | 5·37 | ... | ... | 40·95 |
| 1879 | ... | ... | ... | ... | ... | 5·99 | 8·00 | 13·92 | 2·82 | 1·27 | ... | ... | 32·00 |
| 1880 | ... | ... | ... | ... | ... | 10·09 | 5·03 | 2·89 | 10·60 | 6·48 | 1·80 | ... | 36·89 |
| 1881 | ... | ... | ... | 0·13 | 3·28 | 7·07 | 4·89 | 5·88 | 7·51 | 6·05 | ... | ... | 34·81 |
| 1882 | ... | ... | ... | ... | ... | 5·03 | 17·00 | 3·90 | 7·41 | 1·21 | 3·70 | ... | 38·25 |
| 1883 | ... | ... | 1·00 | ... | 0·24 | 12·71 | 5·93 | 17·62 | 13·88 | 1·16 | 0·36 | ... | 52·87 |
| Mean | 0·22 | ... | 0·19 | 0·30 | 0·73 | 6·78 | 7·69 | 9·08 | 7·18 | 3·10 | 0·73 | 0·57 | 36·57 |
| 1884 | ... | ... | ... | 0·03 | ... | 2·16 | 12·46 | 4·70 | 12·16 | 2·18 | ... | 3·55 | 37·24 |
| 1885 | ... | ... | 0·36 | 0·50 | 1·13 | 3·56 | 6·82 | 3·68 | 6·10 | 1·12 | 0·09 | 2·92 | 26·28 |
| 1886 | ... | ... | 0·09 | 0·33 | 3·58 | 6·54 | 13·21 | 7·29 | 2·98 | 6·66 | ... | ... | 40·68 |
| Mean | 0·16 | ... | 0·18 | 0·30 | 0·96 | 6·04 | 8·54 | 8·02 | 7·15 | 3·16 | 0·54 | 1·00 | 36·05 |

No. 316. INDUR.

Latitude N. 18° 39′. Longitude E. 78° 8′. Elevation 1,200 feet.

Administration: HYDERABAD. Rainfall Province XIX.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1876 | ... | ... | ... | ... | ... | 1·81 | 8·56 | 9·24 | 6·04 | ... | ... | ... | 25·65 |
| 1877 | ... | ... | 0·34 | 1·80 | 0·79 | 2·70 | 2·07 | 4·60 | 6·82 | 8·59 | ... | 0·45 | 28·16 |
| 1878 | ... | ... | 0·94 | 0·01 | 0·55 | 4·46 | 13·88 | 15·63 | 8·63 | 5·64 | 2·22 | ... | 51·96 |
| 1879 | ... | ... | 0·11 | ... | ... | 1·50 | 7·41 | 11·68 | 0·30 | 2·25 | 2·18 | ... | 25·43 |
| 1880 | ... | ... | 0·17 | 0·50 | ... | 4·43 | 9·74 | 1·96 | 6·67 | 1·39 | 0·85 | ... | 25·71 |
| 1881 | ... | ... | 1·32 | ... | ... | 3·24 | 5·19 | 8·16 | 7·66 | 0·41 | 1·40 | ... | 27·38 |
| 1882 | ... | ... | ... | 0·30 | 0·69 | 6·38 | 11·61 | 5·10 | 5·41 | ... | 1·31 | ... | 30·80 |
| 1883 | ... | ... | 0·04 | ... | 0·04 | 6·28 | 9·87 | 19·32 | 14·64 | 2·15 | 1·06 | ... | 53·40 |
| Mean | ... | ... | 0·36 | 0·33 | 0·26 | 3·85 | 8·54 | 9·46 | 7·02 | 2·55 | 1·13 | 0·06 | 33·56 |
| 1884 | 0·60 | ... | ... | 0·75 | ... | 1·43 | 17·78 | 11·99 | 17·09 | 3·29 | 0·06 | 2·14 | 55·13 |
| 1885 | ... | 0·14 | 0·42 | 0·19 | 1·43 | 7·17 | 10·66 | 5·31 | 6·04 | 2·45 | 2·33 | 2·51 | 38·56 |
| 1886 | ... | ... | ... | 0·19 | 0·74 | 8·25 | 22·07 | 20·58 | 4·10 | 4·39 | 0·25 | ... | 60·57 |
| Mean | 0·05 | 0·01 | 0·30 | 0·33 | 0·39 | 4·33 | 10·80 | 10·32 | 7·58 | 2·78 | 1·06 | 0·46 | 38·41 |

No. 317 YELGANDAL.

Latitude N. 18° 26′. Longitude E. 79° 5′. Elevation 1,147 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | ... | ... | ... | 2·15 | 6·54 | 6·24 | 1·14 | 2·24 | ... | ... | 18·31 |
| 1877 | ... | 1·29 | 0·46 | 1·96 | 0·96 | 4·53 | 3·02 | 2·96 | 3·45 | 5·40 | 0·13 | 0·60 | 24·76 |
| 1878 | ... | ... | 1·00 | 1·57 | 1·62 | 4·01 | 1·53 | 8·23 | 6·39 | 3·20 | 0·42 | ... | 27·97 |
| 1879 | ... | 0·61 | ... | 0·65 | 6·26 | 4·73 | 5·56 | 11·21 | 1·53 | 7·88 | 1·34 | ... | 39·77 |
| 1880 | ... | ... | ... | 0·99 | 0·50 | 4·81 | 11·07 | 1·90 | 8·16 | 0·30 | 0·80 | ... | 27·63 |
| 1881 | ... | ... | ... | 0·50 | 0·50 | 4·93 | 4·29 | 6·07 | 13·69 | 0·36 | 1·25 | ... | 31·59 |
| 1882 | 0·20 | ... | ... | 0·46 | 0·65 | 2·65 | 10·06 | 7·55 | 11·55 | ... | 3·50 | ... | 36 62 |
| 1883 | ... | ... | 1·75 | ... | ... | 7·87 | 8·67 | 9·98 | 15·73 | 1·88 | 0·10 | ... | 45·98 |
| Mean | 0·03 | 0·24 | 0·40 | 0·65 | 1·31 | 4·46 | 6·34 | 6·77 | 7·71 | 2·66 | 0·94 | 0·08 | 31·59 |
| 1884 | 0·50 | ... | 2·68 | 0·30 | 0·49 | 4·97 | 12·20 | 6·19 | 9·53 | 0·49 | ... | 2·60 | 39·95 |
| 1885 | ... | ... | 0·12 | ... | 1·35 | 3·95 | 8·31 | 3·42 | 7·05 | 5·03 | 2·94 | 1·70 | 33·87 |
| 1886 | ... | ... | 0·29 | ... | 0·92 | 9·49 | 12·41 | 15·78 | 2·18 | 10·58 | ... | 0·29 | 51·94 |
| Mean | 0·06 | 0·17 | 0·57 | 0·50 | 1·20 | 4·92 | 7·61 | 7·23 | 7·31 | 3·40 | 0·95 | 0·47 | 34·39 |

No. 318. MEDAK.

Latitude N. 18° 3′. Longitude E. 78° 18′. Elevation 1,100 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | ... | 1·08 | 0·42 | 3·68 | 4·14 | 7·05 | 5·08 | ... | ... | ... | 21·45 |
| 1877 | ... | 1·67 | 0·66 | 3·04 | 1·53 | 1·64 | 2·82 | 2·30 | 8·61 | 4·38 | 0·12 | 0·44 | 27·21 |
| 1878 | ... | ... | ... | 1·48 | 0·41 | 2·15 | 9·44 | 14·80 | 8·50 | 6·88 | ... | ... | 43·66 |
| 1879 | ... | ... | ... | ... | ... | 3·40 | 11·13 | 12·48 | 1·21 | 2·15 | 0·66 | ... | 31·03 |
| 1880 | ... | ... | ... | 0·30 | ... | 8·14 | 7·38 | 2·48 | 9·24 | 1·99 | 1·21 | 0·17 | 30·91 |
| 1881 | ... | ... | 0·16 | 0·47 | 0·50 | 3·79 | 3·88 | 5·60 | 7·48 | 2·39 | 0·49 | ... | 24·76 |
| 1882 | 0·33 | ... | ... | 1·01 | 0·68 | 6·61 | 8·00 | 4·26 | 7·44 | 0·49 | 1·37 | ... | 30·19 |
| 1883 | ... | ... | 2·93 | ... | 0·55 | 3·99 | 7·27 | 26·19 | 9·05 | 1·65 | 0·15 | ... | 51·78 |
| Mean | 0·04 | 0·21 | 0·47 | 0·92 | 0·51 | 4·17 | 6·76 | 9·39 | 7·08 | 2·49 | 0·50 | 0·08 | 32·62 |
| 1884 | ... | ... | ... | 1·26 | 1·24 | 2·36 | 13·61 | 5·77 | 8·85 | 1·72 | 0·13 | 1·32 | 36·26 |
| 1885 | ... | ... | 0·78 | ... | 2·02 | 6·11 | 10·48 | 7·09 | 7·30 | 2·75 | 3·04 | 1·94 | 41·51 |
| 1886 | ... | ... | ... | ... | 0·94 | 9·76 | 10·10 | 12·79 | 4·68 | 4·10 | 0·57 | 0·30 | 43·24 |
| Mean | 0·03 | 0·15 | 0·41 | 0·79 | 0·75 | 4·69 | 8·02 | 9·16 | 7·04 | 2·59 | 0·70 | 0·38 | 34·71 |

No. 319. IBRAHIMPATAN.

Latitude N. 18° 1′. Longitude E. 78° 34′. Elevation 1,100 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | 1·00 | 0·53 | ... | 4·93 | 4·23 | 4·77 | 5·01 | ... | 0·05 | ... | 20·52 |
| 1877 | ... | 0·69 | 1·42 | 1·45 | 2·40 | 3·70 | 4·07 | 3·33 | 5·41 | 4·23 | 0·73 | 1·63 | 29·06 |
| 1878 | ... | ... | 0·26 | 1·76 | 1·07 | 2·46 | 14·92 | 12·00 | 5·99 | 5·82 | 0·16 | ... | 44·44 |
| 1879 | ... | ... | ... | 0·23 | 5·49 | 7·84 | 4·99 | 14·04 | 1·70 | 4·28 | 2·27 | ... | 40·84 |
| 1880 | ... | ... | ... | 0·27 | 0·90 | 5·75 | 7·58 | 4·40 | 5·54 | 4·83 | 2·60 | 0·17 | 32·04 |
| 1881 | ... | ... | 0·58 | 0·31 | 0·03 | 6·23 | 1·61 | 3·70 | 7·16 | 1·53 | 3·16 | ... | 24·31 |
| 1882 | 0·15 | ... | .... | 0·33 | 0·90 | 6·15 | 4·41 | 9·00 | 9·73 | 0·12 | 1·74 | ... | 32·53 |
| 1883 | ... | ... | 2·87 | ... | 0·11 | 8·03 | 5·59 | 10·31 | 5·86 | 2·97 | 0·34 | ... | 36·08 |
| Mean | 0·02 | 0·09 | 0·77 | 0·61 | 1·36 | 5·64 | 5·93 | 7·69 | 5·80 | 2·97 | 1·38 | 0·23 | 32·49 |
| 1884 | 0·28 | ... | ... | 2·43 | 1·98 | 1·27 | 10·35 | 5·34 | 4·88 | 2·90 | ... | 0·59 | 30·02 |
| 1885 | ... | ... | ... | 0·70 | 1·87 | 3·07 | 4·76 | 1·48 | 9·05 | 3·81 | 5·61 | 0·65 | 31·00 |
| 1886 | 0·52 | ... | 1·45 | ... | 0·15 | 5·87 | 7·56 | 9·97 | 3·33 | 3·69 | 0·40 | 0·03 | 32·97 |
| Mean | 0·09 | 0·06 | 0·69 | 0·73 | 1·35 | 5·03 | 6·37 | 7·12 | 5·79 | 3·11 | 1·55 | 0·28 | 32·17 |

No. 320. NALDURG.

Latitude N. 17° 49′. Longitude E. 76° 25′. Elevation 1,400 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | ... | ... | 0·83 | 5·13 | 2·12 | 3·61 | 2·37 | ... | ... | ... | 14·06 |
| 1877 | ... | ... | ... | ... | ... | 4·59 | 1·85 | 6·00 | 13·65 | 2·25 | 1·10 | 1·26 | 30·70 |
| 1878 | ... | ... | 1·56 | 0·97 | ... | 3·84 | 12·79 | 14·61 | 10·11 | 5·89 | ... | ... | 49·77 |
| 1879 | ... | ... | ... | ... | 3·36 | 8·10 | 3·66 | 13·39 | 0·54 | 3·85 | ... | ... | 32·90 |
| 1880 | ... | ... | 0·55 | ... | 0·54 | 10·01 | 3·30 | 1·40 | 18·83 | 2·49 | 1·04 | ... | 37·86 |
| 1881 | ... | ... | ... | 0·79 | 1·63 | 8·69 | 5·22 | 7·28 | 7·80 | 2·69 | 2·72 | ... | 36·82 |
| 1882 | ... | ... | ... | 0·20 | 0·93 | 13·63 | 5·92 | 4·17 | 13·44 | 2·11 | 0·69 | 0·04 | 41·13 |
| 1883 | ... | ... | ... | ... | ... | 9·62 | 1·81 | 21·09 | 12·08 | 2·35 | ... | ... | 46·95 |
| Mean | ... | ... | 0·26 | 0·25 | 0·91 | 7·95 | 4·58 | 8·94 | 9·85 | 2·67 | 0·69 | 0·16 | 36·26 |
| 1884 | ... | ... | ... | 0·35 | ... | 2·97 | 5·60 | 6·60 | 11·91 | 4·34 | ... | 2·46 | 34·23 |
| 1885 | ... | ... | 0·15 | 0·50 | 1·02 | 2·67 | 5·12 | 3·29 | 15·98 | 4·85 | 0·71 | 1·71 | 36·00 |
| 1886 | ... | ... | ... | ... | 2·97 | 7·18 | 9·62 | 15·56 | 5·56 | 8·71 | 0·49 | 1·60 | 51·69 |
| Mean | ... | ... | 0·21 | 0·26 | 1·03 | 6·95 | 5·18 | 8·82 | 10·21 | 3·57 | 0·61 | 0·64 | 37·48 |

No. 321. BIDAR.

Latitude N. 17° 55′. Longitude E. 77° 34′. Elevation 22,04 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | ... | ... | ... | 1·57 | 8·86 | 5·82 | 5·00 | 0·12 | ... | ... | 21·37 |
| 1877 | ... | ... | ... | 3·90 | 1·61 | 2·16 | 7·04 | 4·92 | 8·02 | 5·87 | ... | 0·32 | 33·84 |
| 1878 | ... | ... | 0·27 | 1·29 | 0·68 | 3·58 | 13·12 | 19·93 | 11·37 | 5·82 | 0·06 | .... | 56·12 |
| 1879 | ... | ... | 1·88 | ... | ... | 5·81 | 9·05 | 9·55 | 2·28 | 3·45 | 1·14 | ... | 33·16 |
| 1880 | ... | ... | 0·17 | ... | 0·40 | 10·79 | 7·36 | 0·65 | 21·88 | 4·80 | 0·93 | ... | 46·98 |
| 1881 | ... | ... | 0·50 | 0·82 | ... | 10·32 | 5·51 | 8·81 | 6·03 | 4·68 | 1·35 | ... | 38·02 |
| 1882 | ... | ... | ... | ... | 1·26 | 9·48 | 12·99 | 8·21 | 7·21 | 0·89 | 3·38 | ... | 43·42 |
| 1883 | ... | ... | 0·85 | 0·35 | ... | 12·08 | 10·33 | 31·34 | 11·10 | 3·30 | 0·38 | ... | 69·73 |
| Mean | ... | ... | 0·46 | 0·79 | 0·49 | 6·97 | 9·28 | 11·15 | 9·11 | 3·64 | 0·91 | 0·04 | 42·82 |
| 1884 | ... | ... | ... | 1·48 | 0·94 | 1·80 | 14·22 | 6·29 | 11·66 | 1·97 | 0·34 | 4·12 | 42·82 |
| 1885 | ... | ... | 0·50 | 1·82 | 3·22 | 3·88 | 8·60 | 7·66 | 10·81 | 4·88 | 1·78 | 3·56 | 46·71 |
| 1886 | ... | ... | ... | 0·07 | 2·11 | 6·88 | 10·54 | 15·63 | 9·92 | 8·90 | 0·38 | 0·22 | 54·65 |
| Mean | ... | ... | 0·38 | 0·88 | 0·93 | 6·21 | 9·78 | 10·80 | 9·57 | 4·06 | 0·89 | 0·75 | 44·25 |

No. 322. GULBARGA.

Latitude N. 17° 21′ Longitude E. 76°-54′. Elevation 1,508 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | 0·80 | 0·22 | 0·03 | 3·84 | 2·35 | 2·26 | 26·1 | 0·28 | ... | ... | 12·39 |
| 1877 | 0·20 | ... | 0·31 | 1·60 | 0·76 | 5·46 | 1·04 | 3·39 | 9·11 | 8·94 | ... | ... | 30·81 |
| 1878 | ... | ... | ... | ... | 0·64 | 2·55 | 10·85 | 13·48 | 6·12 | 4·31 | 0·09 | ... | 38·04 |
| 1879 | ... | 1·53 | ... | 0·95 | 5·35 | 6·03 | 2·57 | 13·95 | 2·54 | 2·03 | 1·25 | ... | 36·20 |
| 1880 | ... | ... | 0·35 | 0·30 | 1·29 | 7·40 | 7·04 | 2·55 | 10·13 | 2·03 | 0·15 | ... | 31·24 |
| 1881 | ... | ... | 0·05 | 2·49 | 0·40 | 4·18 | 3·22 | 4·38 | 6·90 | 0·98 | 1·37 | ... | 23·97 |
| 1882 | ... | ... | 0·07 | 0·33 | 2·82 | 5·55 | 5·51 | 4·00 | 9·08 | 0·87 | 0·65 | ... | 28·88 |
| 1883 | ... | ... | 0·96 | ... | ... | 5·39 | 3·68 | 16·45 | 5·10 | 2·68 | 0·95 | ... | 35·21 |
| Mean | 0·03 | 0·19 | 0·32 | 0·74 | 1·41 | 5·05 | 4·53 | 7·56 | 6·45 | 2·77 | 0·56 | ... | 29·61 |
| 1884 | 0·50 | ... | 0·14 | 0·86 | 0·81 | 3·80 | 5·16 | 4·59 | 3·58 | 5·31 | ... | 4·62 | 29·37 |
| 1885 | ... | ... | 0 20 | 1·17 | 2·75 | 4·20 | 8·50 | 3·30 | 11·24 | 3·26 | 0·81 | 0·67 | 36·10 |
| 1886 | ... | ... | .... | 0 32 | 1·60 | 5·37 | 4·95 | 9·57 | 3·81 | 4·38 | ... | 0·25 | 30·25 |
| Mean | 0·06 | 0·14 | 0·26 | 0·75 | 1·50 | 4·89 | 4·99 | 7·08 | 6·38 | 3·19 | 0·48 | 0·50 | 30·22 |

No. 323. BOLARUM.

Latitude N. 17° 31′. Longitude E. 78° 34′. Elevation 2,000 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1870 | 0·07 | ... | 0·77 | 0·10 | 0·06 | 1·42 | 7·72 | 6·31 | 5·70 | 4·52 | 0·68 | ... | 27·35 |
| 1871 | ... | 0·01 | 0·27 | 0·27 | 0·32 | 2·26 | 5·19 | 2·96 | 4·24 | 0·12 | 0·19 | ... | 15·83 |
| 1872 | ... | ... | ... | ... | 0·05 | 2·38 | 5·08 | 3·71 | 6·92 | 7·66 | 0·58 | 1·69 | 28·07 |
| 1873 | ... | ... | ... | ... | 1·02 | 6·19 | 4·46 | 5·90 | 5·53 | 0·29 | 0·33 | 0·43 | 24·15 |
| 1874 | ... | 1·06 | ... | 0·73 | 0·49 | 3·43 | 9·17 | 8·85 | 7·99 | 5·13 | ... | 0·06 | 36·91 |
| 1875 | 0·41 | ... | 0·77 | 0·04 | 0·38 | 2·58 | 7·70 | 4·88 | 2·17 | 3·27 | ... | 0·63 | 22·83 |
| 1876 | ... | ... | 0·30 | 0·04 | 0·09 | 1·23 | 6·04 | 7·22 | 5·44 | ... | 0·03 | ... | 20·39 |
| 1877 | 0·75 | 1·50 | 2·08 | 0·69 | 4·94 | 2·32 | 2·92 | 3·08 | 4·88 | 7·11 | 0·06 | 1·64 | 31·97 |
| 1878 | ... | ... | 0·08 | 0·20 | 1·62 | 3·93 | 8·82 | 12·13 | 5·37 | 5·47 | 0·01 | ... | 37·63 |
| 1879 | ... | 0·73 | 0·03 | ... | 3·36 | 4·96 | 6·31 | 11·49 | 4·71 | 3·53 | 0·70 | ... | 35·82 |
| 1880 | ... | ... | ... | 0·66 | 2·05 | 6·84 | 4·11 | 1·91 | 8·12 | 2·53 | 1·95 | 1·15 | 29·32 |
| 1881 | ... | ... | 0·22 | 0·89 | 0·35 | 4·90 | 2·88 | 6·25 | 5·91 | 2·08 | 0·63 | ... | 24·11 |
| 1882 | 0·36 | ... | ... | 2·57 | 0·67 | 3·29 | 4·18 | 6·70 | 5·82 | 0·53 | 1·07 | ... | 25·19 |
| 1883 | 0·40 | ... | 2·50 | 1·39 | 0·52 | 4·35 | 6·61 | 12·35 | 7·94 | 2·12 | 0·23 | ... | 38·41 |
| Mean | 0·14 | 0·24 | 0·50 | 0·54 | 1·14 | 3·58 | 5·80 | 6·70 | 5·77 | 3·17 | 0·46 | 0·40 | 28·44 |
| 1884 | 0·50 | ... | ... | 1·10 | 2·02 | 1·55 | 12·05 | 6·16 | 6·59 | 2·58 | ... | 1·60 | 34·15 |
| 1885 | ... | ... | 0·71 | 0·10 | 1·88 | 4·78 | 7·32 | 3·92 | 7·35 | 6·78 | 4·88 | 0·89 | 38·61 |
| 1886 | ... | ... | 0·02 | 0·10 | 2·34 | 5·65 | 8·25 | 10·95 | 2·73 | 4·84 | 1·00 | 0·15 | 36·03 |
| Mean | 0·15 | 0·19 | 0·46 | 0·52 | 1·30 | 3·65 | 6·40 | 6·75 | 5·73 | 3·44 | 0·73 | 0·48 | 29·80 |

No. 324. SECUNDERABAD.

Latitude N. 17° 27′. Longitude E. 78° 33′. Elevation 1,787 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1843 | 4·25 | ... | 2·20 | ... | 0·30 | 0·75 | 18·80 | 4·55 | 7·35 | 3·40 | ... | ... | 41·60 |
| 1844 | 0·25 | 0·05 | 5·40 | 0·30 | 11·25 | ... | 8·60 | 7·39 | 4·80 | 5·20 | ... | 0·20 | 43·44 |
| 1845 | ... | 0·65 | 1·30 | 0·85 | 0·25 | 5·89 | 5·05 | 4·20 | 2·45 | 1·05 | ... | ... | 21·69 |
| 1846 | ... | 2·10 | ... | 1·45 | 0·63 | 4·42 | 6·57 | 7·05 | 6·80 | 0·70 | ... | ... | 29·72 |
| 1847 | ... | 2·15 | ... | 1·55 | 1·20 | 7·40 | 6·00 | 2·25 | 8·75 | 7·81 | 0·10 | ... | 37·21 |
| 1848 | ... | ... | 0·95 | 0·75 | 0·97 | 4·20 | 1·95 | 6·75 | 0·95 | 8·65 | 0·30 | ... | 25·47 |
| 1849 | 0·75 | ... | ... | 2·70 | 3·25 | 2·30 | 5·07 | 3·50 | 13·88 | 2·16 | 0·30 | ... | 33·91 |
| 1850 | ... | 0·85 | ... | 0·32 | ... | 4·29 | 3·32 | 5·09 | 5·49 | 9·00 | 0·50 | ... | 28·86 |
| 1851 | ... | ... | ... | 0·15 | 0·75 | 2·15 | 11·38 | 5·85 | 1·25 | 6·05 | 2·43 | ... | 30·01 |
| 1852 | ... | ... | 0·48 | 0·15 | 2·80 | 2·52 | 4·21 | 6·84 | ... | 6·10 | ... | 0·70 | 23·80 |
| 1853 | 2·68 | ... | 2·18 | 0·75 | 2·90 | 5·76 | 4·90 | 7·30 | 1·30 | 2·45 | ... | ... | 30·22 |

SECUNDERABAD—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1854 | ... | 0·35 | ... | ... | 1·25 | 2·18 | 7·96 | 4·08 | 4·08 | 7·57 | 1·21 | ... | 28·68 |
| 1855 | ... | 1·53 | 1·94 | 1·95 | ... | 3·17 | 2·24 | 7·07 | 2·20 | 1·98 | 0·42 | ... | 22·50 |
| 1856 | ... | ... | 0·24 | 1·61 | 1·84 | 5·31 | 4·31 | 7·93 | 2·51 | 6·91 | 4·38 | 0·07 | 35·11 |
| 1857 | ... | ... | ... | 0·97 | 6·16 | 2·94 | 4·37 | 0·98 | 3·76 | 2·50 | 1·55 | ... | 23·23 |
| 1858 | ... | ... | ... | ... | 0·73 | 4·63 | 2·82 | 2·61 | 7·89 | 1·64 | ... | ... | 20·32 |
| 1859 | ... | ... | ... | 1·20 | 0·67 | 0·07 | 1·83 | 5·70 | 1·69 | 1·76 | 0·01 | ... | 12·93 |
| 1860 | ... | ... | 0·03 | ... | 0·02 | 2·59 | 4·48 | 3·13 | 5·87 | 2·02 | ... | ... | 18·14 |
| 1861 | 1·00 | ... | 1·15 | ... | 0·10 | 2·00 | 5·75 | 7·41 | 1·75 | 0·54 | 0·40 | ... | 20·10 |
| 1862 | 1·68 | 0·40 | 0·14 | 0·29 | 0·55 | 3·55 | 2·33 | 3·76 | 9·64 | 7·03 | 0·19 | 0·30 | 29·86 |
| 1863 | ... | ... | 1·20 | 0·75 | 0·93 | 2·04 | 5·27 | 8·23 | 6·05 | 2·07 | ... | ... | 26·54 |
| 1864 | ... | ... | ... | 0·15 | 1·77 | 7·96 | 7·01 | 4·02 | 5·15 | ... | 2·71 | ... | 28·77 |
| 1865 | ... | 1·39 | 0·02 | 2·07 | 2·36 | 2·79 | 4·58 | 7·82 | 5·84 | 0·73 | 0·60 | ? | 28·20? |
| 1866 | ... | ... | 2·80 | 0·89 | 0·75 | ... | 10·02 | 4·86 | 3·33 | 2·60 | ... | ... | 25·25 |
| 1867 | ... | ... | 3·29 | 1·25 | 2·57 | 2·83 | 3·60 | 5·95 | 4·95 | 2·41 | ... | 0·13 | 26·88 |
| 1868 | ... | ... | 0·50 | 0·25 | 1·87 | 4·35 | 5·70 | 5·48 | 5·40 | ... | ... | ... | 23·55 |
| 1869 | ... | ... | 0·82 | 0·15 | 0·41 | 9·93 | 5·02 | 4·25 | 5·86 | 4·59 | 0·86 | 0·88 | 32·68 |
| 1870 | 0·15 | ... | 0·75 | ... | 0·71 | 1·38 | 7·23 | 6·03 | 6·60 | 5·79 | 2·27 | ... | 30·91 |
| 1871 | ... | ... | 0·30 | 0·36 | 0·04 | 2·20 | 4·16 | 2·62 | 9·74 | 0·89 | 0·14 | ... | 20·45 |
| 1872 | ... | ... | ... | 1·52 | 0·05 | 4·09 | 7·41 | 4·76 | 8·19 | 5·67 | 0·39 | 3·44 | 35·52 |
| 1873 | ... | ... | 0·10 | 0·01 | 1·05 | 4·66 | 4·07 | 5·07 | 5·17 | 1·41 | 0·26 | 0·03 | 21·83 |
| 1874 | ... | ... | 0·01 | 0·46 | 0·96 | 3·62 | 6·27 | 5·49 | 11·78 | 1·23 | ... | 0·02 | 29·84 |
| 1875 | 0·11 | ... | 0·06 | 0·27 | 0·11 | 4·01 | 6·03 | 4·11 | 1·94 | 2·64 | ... | 0·28 | 19·56 |
| 1876 | ... | ... | 0·56 | 0·09 | 0·08 | 1·73 | 4·72 | 3·94 | 4·28 | ... | ... | ... | 15·40 |
| 1877 | 0·90 | 0·17 | 1·97 | 1·19 | 2·50 | 1·98 | 2·39 | 4·47 | 4·47 | 5·99 | 2·20 | 1·03 | 29·26 |
| 1878 | ... | ... | 0·72 | 0·10 | 0·56 | 2·93 | 11·07 | 17·85 | 4·37 | 6·30 | 0·66 | ... | 44·56 |
| 1879 | ... | 0·07 | ... | 0·05 | 2·60 | 8·25 | 7·74 | 12·46 | 2·39 | 21·87 | 1·13 | ... | 36·56 |
| 1880 | ... | ... | ... | 0·46 | 1·65 | 6·13 | 4·46 | 3·21 | 5·02 | 3·09 | 1·82 | 0·80 | 26·64 |
| 1881 | ... | ... | 0·11 | 1·60 | 0·06 | 3·95 | 3·04 | 3·46 | 5·56 | 1·13 | 2·57 | ... | 21·48 |
| 1882 | 0·13 | ... | ... | 2·37 | 0·85 | 3·14 | 4·35 | 5·13 | 7·99 | 0·44 | 2·90 | 0·01 | 27·31 |
| 1883 | 0·21 | ... | 2·62 | 0·22 | 0·19 | 5·65 | 8·39 | 7·73 | 5·81 | 1·82 | 0·61 | ... | 33·25 |
| Mean | 0·30 | 0·24 | 0·78 | 0·71 | 1·41 | 3·65 | 5·72 | 5·62 | 5·18 | 3·30 | 0·75 | 0·22 | 27·88 |
| 1884 | 0·27 | ... | 0·14 | 1·38 | 2·07 | 1·44 | 13·26 | 6·05 | 5·09 | 2·05 | 0·04 | 1·13 | 32·92 |
| 1885 | .. | ... | 0·30 | 1·25 | 2·11 | 2·76 | 6·76 | 6·40 | 9·92 | 4·82 | 5·40 | 1·10 | 40·82 |
| 1886 | 0·01 | ... | 0·05 | 0·22 | 1·08 | 6·77 | 8·39 | 10·10 | 2·87 | 4·55 | 0·92 | 0·12 | 35·08 |
| Mean | 0·28 | 0·22 | 0·73 | 0·73 | 1·43 | 3·65 | 5·97 | 5·75 | 5·23 | 3·33 | 0·85 | 0·26 | 28·43 |

No. 325. HYDERABAD (RESIDENCY).

Latitude N. 17° 23′. Longitude E. 78° 31′. Elevation 1,662 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1869 | ... | ... | ... | 0·43 | 0·65 | 11·56 | 4·34 | 4·15 | 4·81 | 6·14 | 1·44 | 1·41 | 34·83 |
| 1870 | 0·20 | ... | 0·93 | ... | 0·11 | 1·99 | 6·33 | 7·49 | 7·63 | 3·27 | 1·34 | ... | 29·29 |

HYDERABAD (RESIDENCY)—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | ... | ... | 0·14 | 0·19 | 0·26 | 2·89 | 5·11 | 2·10 | 8·49 | 1·19 | 0·16 | ... | 20·53 |
| 1872 | ... | ... | ... | 0·35 | 0·03 | 2·68 | 6·45 | 4·71 | 7·41 | 5·27 | 0·29 | 1·52 | 28·71 |
| 1873 | ... | ... | 0·20 | ... | 0·79 | 4·25 | 3·27 | 5·86 | 7·18 | 1·28 | 0·08 | 0·05 | 22·96 |
| 1874 | 0·01 | ... | 0·09 | 0·25 | 0·56 | 2·66 | 6·99 | 4·81 | 13·27 | 1·19 | 0·42 | 0·20 | 30·36 |
| 1875 | 0·03 | ... | 0·31 | 0·90 | 0·93 | 6·01 | 6·91 | 4·39 | 2·49 | 2·30 | ... | 0·20 | 24·47 |
| 1876 | ... | ... | 0·53 | 0·30 | 0·37 | 2·09 | 3·90 | 5·64 | 4·74 | ... | 0·02 | ... | 17·59 |
| 1877 | 2·00 | 0·82 | 0·82 | 1·53 | 2·37 | 3·09 | 2·32 | 4·11 | 7·61 | 7·19 | 0·72 | 4·00 | 36·58 |
| 1878 | ... | ... | 0·14 | 0·50 | 1·23 | 4·16 | 12·27 | 15·07 | 7·41 | 6·28 | 0·37 | ... | 47·43 |
| 1879 | ... | 0·33 | ... | ... | 2·67 | 5·74 | 7·84 | 10·62 | 2·28 | 5·36 | 1·59 | ... | 36·43 |
| 1880 | ... | ... | ... | 1·24 | 0·85 | 5·59 | 4·15 | 3·14 | 5·63 | 3·99 | 2·52 | 2·58 | 29·69 |
| 1881 | ... | ... | 0·15 | 2·50 | 0·08 | 4·61 | 2·21 | 3·80 | 7·67 | 3·71 | 2·28 | ... | 27·01 |
| 1882 | ... | ... | ... | 1·93 | 1·27 | 4·16 | 4·31 | 9·78 | 17·21 | 0·33 | 2·01 | 0·02 | 41·02 |
| 1883 | ... | ... | 1·80 | 0·13 | ... | 4·67 | 4·86 | 6·94 | 4·11 | 3·16 | 0·65 | ... | 26·32 |
| Mean | 0·15 | 0·08 | 0·34 | 0·68 | 0·80 | 4·41 | 5·42 | 6·17 | 7·20 | 3·37 | 0·93 | 0·67 | 30·22 |
| 1884 | 0·25 | ... | ... | 0·76 | 2·66 | 1·44 | 12·90 | 7·53 | 4·50 | 3·00 | ... | 1·01 | 34·05 |
| 1885 | ... | ... | 0·30 | 0·73 | 1·46 | 3·38 | 9·32 | 5·55 | 10·53 | 5·61 | 7·52 | 0·97 | 45·37 |
| 1886 | ... | ... | 0·02 | 0·14 | 1·81 | 7·58 | 8·94 | 9·43 | 0·92 | 6·66 | 1·09 | 0·05 | 36·64 |
| Mean | 0·14 | 0·06 | 0·30 | 0·66 | 1·00 | 4·36 | 6·25 | 6·40 | 6·88 | 3·66 | 1·25 | 0·67 | 31·63 |

No. 326. NALGONDA.

Latitude N. 17° 3′. Longitude E. 79° 18′. Elevation 1,900 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | 0·12 | 0·03 | 0·75 | 2·28 | 4·02 | 3·92 | 1·97 | ... | 1·16 | ... | 14·25 |
| 1877 | 0·75 | 0·11 | 2·44 | 2·05 | 4·48 | 1·11 | 2·09 | 1·05 | 3·93 | 4·04 | 1·98 | 0·35 | 24·38 |
| 1878 | ... | ... | ... | ... | 2·90 | 4·45 | 9·80 | 8·44 | 4·66 | 5·12 | 0·05 | ... | 35·42 |
| 1879 | ... | ... | ... | ... | 1·55 | 2·42 | 3·69 | 5·73 | 2·96 | 10·04 | 2·78 | ... | 29·17 |
| 1880 | ... | ... | ... | 0·01 | 2·50 | 1·26 | 3·23 | 3·51 | 8·97 | 2·90 | 2·22 | 0·20 | 24·80 |
| 1881 | ... | ... | 0·80 | ... | 1·15 | 3·21 | 1·18 | 6·72 | 9·78 | 1·66 | 2·58 | ... | 27·08 |
| 1882 | ... | ... | ... | ... | 0·63 | 3·27 | 3·73 | 5·54 | 13·98 | 1·01 | 4·96 | ... | 33·12 |
| 1883 | ... | ... | ... | 0·81 | ... | 6·83 | 7·53 | 4·49 | 3·92 | 6·60 | 0·22 | ... | 30·40 |
| Mean | 0·09 | 0·01 | 0·42 | 0·36 | 1·74 | 3·10 | 4·41 | 4·93 | 6·27 | 3·92 | 1·99 | 0·07 | 27·31 |
| 1884 | 1·50 | ... | ... | ... | 0·58 | 2·28 | 5·69 | 4·28 | 3·23 | 3·07 | ... | 0·75 | 21·38 |
| 1885 | ... | ... | 0·50 | 1·22 | 0·50 | 3·75 | 2·25 | 0·84 | 10·32 | 2·41 | 4·73 | 1·03 | 27·55 |
| 1886 | ... | ... | 0·65 | ... | 0·37 | 6·02 | 4·07 | 8·45 | 3·96 | 9·95 | 1·40 | 0·31 | 35·18 |
| Mean | 0·20 | 0·01 | 0·41 | 0·37 | 1·40 | 3·35 | 4·29 | 4·82 | 6·15 | 4·25 | 2·01 | 0·24 | 27·50 |

No. 327. KHAMAM.

Latitude N. 17° 15′. Longitude E. 80° 11′. Elevation 900 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | 1·35 | 0·43 | 0·11 | 2·54 | 6·52 | 5·79 | 2·55 | ... | ... | ... | 19·29 |
| 1877 | ... | 0·97 | 3·93 | 1·35 | ... | 2·15 | 1·68 | 1·66 | 3·35 | 5·61 | 0·65 | 1·26 | 22·61 |
| 1878 | ... | ... | ... | 0·40 | 1·06 | 2·67 | 10·19 | 12·73 | 6·23 | 6·86 | 1·40 | ... | 41·54 |
| 1879 | ... | 1·67 | ... | ... | 3·62 | 9·70 | 6·45 | 11·43 | 2·15 | 2·95 | 1·32 | ... | 39·29 |
| 1880 | ... | 0·10 | ... | 0·15 | 1·61 | 3·56 | 5·99 | 3·85 | 8·29 | 1·09 | 3·45 | 0·82 | 28·91 |
| 1881 | ... | ... | 1·27 | 1·45 | 0·23 | 4·19 | 0·58 | 5·47 | 1·62 | ... | 2·05 | ... | 16·86 |
| 1882 | ... | ... | ... | ... | ... | 2·02 | 9·32 | 5·64 | 12·28 | 0·21 | 3·18 | ... | 32·65 |
| 1883 | ... | ... | 2·82 | 0·06 | 0·61 | 11·42 | 8·18 | 9·32 | 11·72 | 0·82 | 0·31 | ... | 45·26 |
| Mean | ... | 0·34 | 1·17 | 0·48 | 0·91 | 4·78 | 6·11 | 6·99 | 6·02 | 2·19 | 1·55 | 0·26 | 30·80 |
| 1884 | 3·17 | ... | ... | ... | 0·22 | 3·16 | 13·63 | 7·02 | 11·07 | 0·20 | ... | 1·65 | 40·12 |
| 1885 | ... | ... | 0·41 | ... | 2·78 | 2·28 | 7·35 | 1·91 | 4·15 | 4·81 | 2·31 | 1·46 | 27·46 |
| 1886 | ... | ... | 3·65 | 0·08 | 0·99 | 8·39 | 10·64 | 10·28 | 3·36 | 6·49 | 0·20 | 0·97 | 45·05 |
| Mean | 0·29 | 0·25 | 1·22 | 0·36 | 1·02 | 4·73 | 7·32 | 6·83 | 6·07 | 2·64 | 1·35 | 0·56 | 32·64 |

No. 328. SHORAPUR.

Latitude N. 16° 31′. Longitude E. 76° 49′. Elevation 1,600 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | 0·86 | ... | ... | 2·38 | 2·33 | 1·07 | 0·82 | 0·09 | ... | ... | 7·55 |
| 1877 | ... | ... | 0·15 | 0·18 | 0·06 | 1·33 | 1·42 | 4·36 | 4·94 | 6·83 | ... | 0·91 | 20·18 |
| 1878 | ... | ... | 0·09 | 0·75 | 1·04 | 2·24 | 5·57 | 6·21 | 10·83 | 2·23 | 2·35 | ... | 31·31 |
| 1879 | ... | ... | 0·02 | ... | 1·13 | 3·72 | 9·68 | 9·34 | 1·12 | 2·17 | 1·13 | ... | 28·31 |
| 1880 | ... | ... | 0·31 | ... | ... | 3·48 | 4·92 | 3·96 | 8·65 | 7·35 | 0·75 | ... | 29·42 |
| 1881 | ... | ... | ... | 0·08 | 0·41 | 6·47 | 1·45 | 4·24 | 7·47 | 3·85 | 1·06 | ... | 25·03 |
| 1882 | ... | ... | ... | 0·90 | 0·30 | 2·20 | 3·46 | 8·32 | 2·48 | 2·20 | 1·42 | ... | 21·28 |
| 1883 | ... | ... | ... | ... | ... | Discontinued. | | | | | | | ? |
| Mean | ... | ... | 0·18 | 0·24 | 0·37 | 3·12 | 4·12 | 5·36 | 5·19 | 3·53 | 0·96 | 0·13 | 23·20 |

No. 329. NAGAR KARNUL.

Latitude N. 16° 30′. Longitude E. 78° 22′. Elevation 1,200 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | 0·18 | ... | 0·08 | 3·11 | 4·89 | 3·28 | 1·57 | ... | ... | ... | 13·11 |
| 1877 | 0·19 | 0·35 | 1·86 | 1·76 | 1·39 | 2·84 | 1·25 | 5·49 | 6·94 | 5·36 | 0·05 | 2·80 | 30·28 |
| 1878 | ... | ... | 0·03 | 0·23 | 0·95 | 4·75 | 13·36 | 19·30 | 5·66 | 4·57 | 0·69 | ... | 49·54 |
| 1879 | ... | ... | ... | 0·35 | 3·45 | 2·09 | 3·81 | 10·70 | 5·94 | 1·58 | 1·17 | ... | 29·09 |
| 1880 | ... | ... | 0·11 | 0·63 | 0·10 | 8·67 | 4·95 | 3·80 | 6·43 | 1·75 | 1·54 | ... | 27·98 |
| 1881 | ... | ... | 0·78 | 0·50 | 1·29 | 2·72 | 6·20 | 2·93 | 4·06 | 4·65 | 1·28 | ... | 24·41 |
| 1882 | 0·08 | ... | 0·02 | 0·46 | 1·81 | 3·33 | 5·32 | 5·19 | 6·61 | 0·45 | 0·61 | ... | 24·18 |
| 1883 | ... | ... | 1·24 | 0·04 | 1·54 | 7·26 | 7·12 | 5·90 | 6·30 | 1·81 | 0·35 | ... | 31·58 |
| Mean | 0·03 | 0·04 | 0·53 | 0·50 | 1·33 | 4·35 | 5·86 | 7·11 | 5·44 | 2·52 | 0·71 | 0·35 | 28·77 |
| 1884 | 0·35 | ... | ... | 1·09 | 2·33 | 2·88 | 10·01 | 3·80 | 5·57 | 3·17 | ... | 0·15 | 29·35 |
| 1885 | ... | ... | 0·03 | 0·20 | 3·29 | 1·73 | 5·62 | 5·03 | 4·59 | 5·61 | ... | 2·79 | 29·49 |
| 1886 | ... | ... | ... | 0·15 | 1·17 | 4·62 | 9·53 | 7·16 | 1·89 | 7·51 | 0·22 | 0·03 | 32·28 |
| Mean | 0·06 | 0·03 | 0·39 | 0·49 | 1·58 | 4·00 | 6·55 | 6·68 | 5·05 | 3·31 | 0·54 | 0·52 | 29·20 |

No. 330. LINGSUGUR.

Latitude N. 16° 7′. Longitude E. 76° 34′. Elevation 1,300 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | ... | ... | 0·03 | 2·66 | 0·93 | 0·40 | 1·10 | 0·03 | ... | ... | 5·15 |
| 1877 | ... | ... | ... | ... | ... | ... | ... | 4·07 | 10·35 | 5·88 | 0·10 | 1·82 | 22·22 |
| 1878 | ... | ... | ... | 3·40 | 2·53 | 1·15 | 8·86 | 8·59 | 10·72 | 5·30 | 0·56 | ... | 41·11 |
| 1879 | ... | 0·07 | ... | 0·02 | 2·75 | 3·21 | 4·05 | 5·47 | 1·16 | 5·31 | 0·91 | ... | 22·95 |
| 1880 | ... | ... | 0·04 | 0·26 | 0·75 | 5·01 | 2·02 | 1·33 | 7·63 | 7·82 | 1·07 | 0·16 | 26·09 |
| 1881 | ... | ... | ... | 1·27 | 0·41 | 11·16 | 0·80 | 3·41 | 7·35 | 3·51 | 1·39 | ... | 29·30 |
| 1882 | 0·03 | ... | ... | ... | 0·34 | 1·65 | 3·23 | 5·24 | 6·73 | 3·17 | 7·55 | ... | 27·94 |
| 1883 | ... | ... | ... | 0·71 | 0·41 | 1·12 | 0·87 | 7·11 | 1·04 | 5·04 | 1·20 | ... | 17·50 |
| Mean | ... | 0·01 | 0·01 | 0·71 | 0·90 | 3·24 | 2·60 | 4·45 | 5·76 | 4·51 | 1·60 | 0·25 | 24·04 |
| 1884 | 0·13 | ... | ... | ... | 1·34 | 0·83 | 1·53 | 1·43 | 3·86 | 3·45 | 0·16 | Discontinued. | |

No. 331. RAICHUR.

Latitude N. 16° 12′. Longitude E. 77° 23′. Elevation 1,325 feet.

Administration: HYDERABAD. Rainfall Province No. XIX.

| Year. | Inches of Rainfall. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1876 | ... | ... | ... | ... | 0·42 | 5·62 | 1·74 | 1·43 | 3·92 | ... | ... | ... | 13·13 |
| 1877 | ... | ... | ... | ... | 2·11 | 2·00 | 1·28 | 2·89 | 5·16 | 7·05 | 0·07 | 0·12 | 20·68 |
| 1878 | ... | ... | ... | 2·76 | 0·45 | 2·81 | 8·38 | 8·96 | 7·69 | 5·91 | 0·27 | ... | 37·23 |
| 1879 | ... | ... | ... | 0·30 | 0·53 | 3·32 | 7·62 | 12·62 | 0·46 | 2·69 | 1·08 | ... | 28·62 |
| 1880 | ... | ... | 0·49 | 2·35 | 1·29 | 8·07 | 2·35 | 3·29 | 4·25 | 7·64 | 0·97 | 0·07 | 30·77 |
| 1881 | ... | ... | ... | 0·43 | 0·34 | 4·64 | 1·77 | 2·66 | 7·72 | 2·77 | 0·94 | ... | 21·27 |
| 1882 | 0·46 | ... | 0·27 | ... | 0·60 | 3·87 | 2·46 | 4·45 | 4·97 | 3·92 | 1·12 | ... | 22·12 |
| 1883 | ... | ... | 2·10 | 0·30 | 0·19 | 5·33 | 3·77 | 5·43 | 5·10 | 3·01 | 0·52 | ... | 25·75 |
| Mean | 0·06 | ... | 0·36 | 0·77 | 0·74 | 4·46 | 3·67 | 5·22 | 4·91 | 4·12 | 0·62 | 0·02 | 24·95 |
| 1884 | 0·12 | ... | ... | ... | 0·27 | 0·95 | 2·09 | 4·62 | 3·45 | 3·94 | ... | 0·26 | 15·70 |
| 1885 | ... | ... | 0·24 | ... | 1·78 | 4·10 | 1·87 | 3·71 | 5·68 | 4·70 | 1·43 | 0·79 | 24·30 |
| 1886 | ... | ... | ... | 0·02 | 5·83 | 5·65 | 7·20 | 8·57 | 3·21 | 7·52 | 0·63 | 0·28 | 38·91 |
| Mean | 0·05 | ... | 0·28 | 0·56 | 1·26 | 4·21 | 3·68 | 5·33 | 4·69 | 4·47 | 0·64 | 0·13 | 25·30 |

No. 332. SHIMOGA.

Latitude N. 13° 56′. Longitude E. 75° 36′. Elevation 1,900 feet.

Administration: MYSORE. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1837 | .. | ... | ... | 0·30 | 3·20 | 1·10 | 2·40 | 3·80 | 6·10 | 0·50 | 8·50 | 1·50 | 27·40 |
| 1838 | ... | ... | ... | 2·30 | 1·80 | 1·90 | 2·30 | 2·90 | 2·50 | 1·30 | 0·80 | ... | 15·80 |
| 1839 | ... | ... | ... | 3·20 | 3·40 | 1·80 | 7·20 | 4·20 | 3·60 | 5·70 | 1·90 | ... | 31·00 |
| 1840 | ... | ... | ... | 1·10 | 2·20 | 5·50 | 9·40 | 0·60 | 0·50 | 3·60 | 1·00 | ... | 23·90 |
| 1841 | ... | ... | ... | ... | 3·30 | 2·50 | 3·20 | 3·40 | 0·70 | 10·10 | 0·60 | ... | 23·80 |
| 1842 | ... | ... | ... | 0·50 | 2·30 | 6·30 | 7·50 | 3·80 | 8·10 | 0·50 | ... | ... | 29·00 |
| 1843 | ... | ... | ... | 3·20 | ... | ... | 1·69 | 0·50 | 4·50 | 5·50 | ... | ... | 15·39 |
| 1844 | ... | ... | ... | 0·20 | 2·10 | 4·60 | 6·40 | 4·10 | 5·90 | 5·40 | ... | 2·00 | 30·70 |
| 1845 | 0·20 | ... | 0·50 | 3·50 | 0·20 | 5·20 | 2·10 | 2·50 | 6·70 | 0·30 | 2·00 | 0·90 | 24·10 |
| 1846 | ... | 0·70 | ... | 0·10 | 1·70 | 5·40 | 8·50 | 4·60 | 1·50 | 8·50 | 1·50 | 0·20 | 32·70 |
| 1847 | ... | 3·80 | 0·30 | 3·30 | 7·10 | 1·60 | 1·70 | 0·90 | 0·80 | 8·30 | 3·50 | ... | 31·30 |
| 1848 | ... | ... | ... | 3·40 | 5·80 | 5·20 | 5·50 | 8·10 | 1·70 | 2·40 | 0·80 | ... | 32·90 |
| 1849 | ... | ... | 0·70 | 4·60 | 4·50 | 3·90 | 4·90 | 6·20 | 3·60 | 7·30 | 4·50 | ... | 40·20 |
| 1850 | ... | 0·70 | ... | 3·80 | 1·70 | 2·90 | 14·50 | 4·90 | 3·10 | 6·50 | 0·40 | ... | 38·50 |
| 1851 | ... | ... | ... | 0·30 | 1·80 | 3·10 | 9·30 | 2·40 | 0·30 | 2·30 | 0·60 | 0·20 | 20·30 |
| 1852 | ... | ... | ... | 2·30 | 7·60 | 5·70 | 6·20 | 6·30 | 3·10 | 6·90 | 2·00 | 2·70 | 42·80 |
| 1853 | ... | ... | 0·10 | 1·90 | 1·90 | 2·80 | 16·10 | 2·10 | 1·70 | 2·40 | 0·40 | ... | 29·40 |
| 1854 | ... | ... | ... | 0·50 | 4·10 | 2·50 | 5·30 | 2·30 | 2·70 | 8·20 | 0·50 | ... | 26·10 |
| 1855 | ... | 0·10 | 0·50 | 0·40 | 0·70 | 2·50 | 4·20 | 0·90 | 3·40 | 2·90 | ... | ... | 15·60 |
| 1856 | ... | ... | 0·50 | 2·50 | 7·80 | 2·80 | 3·60 | 4·00 | 0·50 | 3·00 | ... | ... | 24·70 |

SHIMOGA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1857 | ... | ... | 0·50 | 0·30 | 5·10 | 2·80 | 4·70 | 4·60 | 0·30 | 3·40 | 0·40 | ... | 22·10 |
| 1858 | ... | ... | ... | 0·40 | 9·10 | 2·50 | 3·30 | 0·70 | 1·90 | 15·30 | ... | ... | 33·40 |
| 1859 | ... | ... | 0·40 | 3·50 | 2·80 | 2·90 | 10·20 | 3·30 | 7·80 | 0 90 | ... | ... | 31·80 |
| 1860 | ... | ... | 0·60 | 1·00 | 2·30 | 4·30 | 3·10 | 2·00 | 1·60 | 5·60 | ... | ... | 20·50 |
| 1861 | 0·30 | ... | 0·10 | 1·50 | 0·40 | 4·60 | 4·00 | 10·10 | 0·40 | 2·30 | 2·10 | ... | 25 80 |
| 1862 | ... | 1·10 | 0·50 | 3·80 | 0·50 | 5·10 | 1·90 | 5·10 | 2·60 | 4·10 | ... | ... | 24·70 |
| 1863 | ... | ... | 1·40 | 1·10 | 1·10 | 13·20 | 4·70 | 3·30 | 0 50 | 6·00 | ... | ... | 31·30 |
| 1864 | ... | ... | ... | 0·70 | 6·10 | 4·30 | 15·10 | 4·80 | 1·70 | 1·80 | 0·20 | ... | 34·70 |
| 1865 | ... | ... | ... | 6·60 | 2·80 | 6·50 | 8·80 | 5·90 | 1·00 | 2·80 | 0·30 | ... | 34·10 |
| 1866 | ... | ... | ... | 0·40 | 2·70 | 5·10 | 6·00 | 4·00 | 2·80 | 13·90 | ... | 1·40 | 36·30 |
| 1867 | ... | ... | 1·09 | 0·15 | 2·22 | 6·38 | 4·56 | 4·84 | 1·46 | 7·93 | ... | ... | 28·63 |
| 1868 | ... | ... | 0·01 | ... | 1·90 | 8·02 | 6 45 | 4·95 | 2·33 | 3·95 | 1·40 | ... | 29·01 |
| 1869 | ... | ... | ? | 2·53 | 1·26 | 4·32 | 5·66 | 6·28 | 1·07 | 2·77 | 0·10 | 2·25 | 26·24? |
| 1870 | 0·30 | ... | 1·74 | ... | 0·19 | 5·33 | 10·26 | 7·07 | 2·88 | 9·47 | .. | ... | 37·24 |
| 1871 | 2·46 | ... | 0·20 | 2·27 | 6·46 | 6·36 | 5·33 | 2·55 | 2·87 | 4·40 | 2·36 | ... | 35·26 |
| 1872 | ... | ... | 0·05 | 0·08 | 4·77 | 3·92 | 9·05 | 2·68 | 3·70 | 4·90 | 1·19 | 2·00 | 32·34 |
| 1873 | ... | 0·30 | ... | 1·57 | 4·96 | 2·04 | 5·18 | 4·03 | 2·21 | 8·24 | ... | 0·25 | 28·78 |
| 1874 | ... | ... | ... | 0·25 | 7·37 | 5·25 | 9·90 | 2·78 | 6·35 | 6·77 | 1·20 | ... | 39·87 |
| 1875 | ... | ... | 1·36 | ... | 3·43 | 6·22 | 7·68 | 3·14 | 1·25 | 3·25 | 0·15 | ... | 26·48 |
| 1876 | ... | ... | 1·50 | 2·25 | 0·20 | 2·73 | 7·91 | 1·96 | 2·43 | 0·78 | ... | ... | 19·76 |
| 1877 | ... | ... | ... | 1·92 | 0·93 | 8 46 | 1·08 | 4·29 | 9·49 | 11·00 | 3·05 | 2·35 | 42·57 |
| 1878 | ... | ... | ... | 2·05 | 2·86 | 2·56 | 4·57 | 6·28 | 4·55 | 3·54 | 0·35 | ... | 27·66 |
| 1879 | ... | 0·13 | 0·07 | 1·64 | 8·02 | 8·18 | 4·76 | 7·49 | 0·78 | 3·60 | 1·05 | 0·05 | 35·77 |
| 1880 | ... | ... | 1·38 | 2·65 | 2·93 | 5·79 | 5·84 | 3·69 | 3·44 | 5·77 | 1·71 | ... | 33·20 |
| 1881 | ... | ... | ... | 3·83 | 0·71 | 1·88 | 5·93 | 4·83 | 1·35 | 0·73 | 3·88 | ... | 23·14 |
| 1882 | 0·12 | ... | 1·17 | 0·35 | 7·15 | 7·64 | 25·94 | 6·08 | 6·03 | 1·41 | 1·97 | ... | 57·86 |
| 1883 | ... | ... | 0·56 | 5·31 | 2·79 | 4·25 | 9 63 | 8·86 | 3·42 | 8·44 | 3·41 | 0·90 | 47·57 |
| Mean | 0·07 | 0·15 | 0·33 | 1·78 | 3·28 | 4·42 | 6·67 | 4·13 | 2·92 | 5·00 | 1·15 | 0·36 | 30·26 |
| 1884 | ... | ... | ... | 3·57 | 0·24 | 2·11 | 5·19 | 9 98 | 4·00 | 4·78 | 1·55 | 0·40 | 31·82 |
| 1885 | ... | ... | 1·45 | 1·26 | 5·19 | 4·04 | 5·19 | 3·61 | 6·24 | 6·48 | 2·76 | 2·88 | 39·10 |
| 1886 | ... | ... | 0·19 | 0·68 | 4·56 | 22·03 | 7·55 | 3·22 | 7·66 | 4·35 | 2·19 | ... | 52·43 |
| Mean | 0·07 | 0·12 | 0·34 | 1·79 | 3·28 | 4·72 | 6·63 | 4·22 | 3·10 | 5·01 | 1·21 | 0·49 | 30·89 |

No. 333. CHITALDROOG.

Latitude N. 14° 13′. Longitude E. 76° 26′. Elevation 2,383 feet.

Administration: MYSORE. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ... | ... | ... | ... | 1·60 | 3·80 | 2·75 | 7·10 | 1·46 | 7·90 | 0 65 | ... | 25·26 |
| 1871 | 1·10 | ... | ... | ... | 5·93 | 5·24 | 1·40 | 4·93 | 3·55 | 1 97 | 2·02 | ... | 26·14 |
| 1872 | ... | ... | ... | 1·58 | 5·08 | 2·66 | 3·31 | 2·06 | 6·86 | 3·45 | 0·79 | 2·10 | 27·89 |
| 1873 | ... | ... | ... | 5·28 | 2·23 | 1·00 | 1·72 | 4·29 | 6·29 | 10·17 | 0·20 | ... | 31·18 |
| 1874 | ... | ... | ... | 0·43 | 7·33 | 4·21 | 3·75 | 1·88 | 5·03 | 10·92 | 0·25 | 1·35 | 35·15 |

CHITALDROOG—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | ... | ... | 0·50 | ... | 1·61 | 2·96 | 3·71 | 1·36 | 0·83 | 0·83 | 0·41 | ... | 12·21 |
| 1876 | ... | ... | 0·49 | 1·90 | 1·70 | 1·90 | 2·59 | 0·50 | 0·90 | ... | .... | ... | 9·98 |
| 1877 | ... | ... | ... | 1·30 | 1·85 | 4·55 | 1·50 | 1·37 | 6·68 | 11·10 | 0·20 | 1·40 | 29·95 |
| 1878 | ... | ... | ... | 2·80 | 3·80 | 4·65 | 2·64 | 4·88 | 5·15 | 1·40 | 0·70 | ... | 26·02 |
| 1879 | 0·10 | 0·31 | ... | 0·40 | 9·68 | 1·91 | 4·71 | 3·22 | 1·33 | 1·20 | 2·04 | ... | 24·90 |
| 1880 | ... | ... | 0·27 | 1·78 | 2·21 | 6·01 | 2·23 | 2·40 | 3·50 | 12·63 | 7·28 | 0·30 | 38·61 |
| 1881 | ... | ... | 0·65 | 0·50 | 0·95 | 0·35 | 0·60 | 2·84 | 4·34 | 1·20 | 4·98 | ... | 16·41 |
| 1882 | 3·80 | ... | ... | ... | 4·25 | 2·17 | 4·52 | 2·61 | 2·45 | 2·71 | 3·62 | ... | 26·13 |
| 1883 | ... | ... | 0·32 | 0·60 | 3·95 | 2·65 | 3·37 | 7·03 | 0·73 | 6·22 | 4·65 | 0·84 | 30·36 |
| Mean | 0·36 | 0·02 | 0·16 | 1·18 | 3·73 | 3·15 | 2·77 | 3·32 | 3·51 | 5·12 | 1·99 | 0·43 | 25·74 |
| 1884 | ... | ... | ... | 0·80 | 0·70 | 2·02 | 0·99 | 2·20 | 1·22 | 6·68 | 2·30 | 1·21 | 18·12 |
| 1885 | ... | ... | 0·04 | 0·67 | 4·38 | 1·09 | 2·19 | 1·23 | 7·00 | 8·80 | 0·15 | 0·83 | 26·38 |
| 1886 | ... | ... | ... | 0·04 | 2·14 | 1·09 | 2·21 | 1·28 | 9·03 | 2·38 | 3·97 | 0·21 | 22·35 |
| Mean | 0·29 | 0·02 | 0·13 | 1·06 | 3·49 | 2·84 | 2·60 | 3·01 | 3·90 | 5·27 | 2·01 | 0·48 | 25·10 |

No. 334. CHIKMAGALUR.

Latitude N., 13° 18′. Longtiude E. 75° 49′. Elevation 3,418 feet.

Administration: MYSORE. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ... | .... | ... | ... | 3·15 | 7·85 | 5·52 | 3·70 | 3·12 | 7·75 | ... | ... | 31·99 |
| 1871 | 4·57 | ... | ... | 2·13 | 4·45 | 3·87 | 2·25 | 1·15 | 4·13 | 5·90 | 7·20 | ... | 35·65 |
| 1872 | ... | .. | ... | 1·40 | 2·95 | 6·12 | 9·37 | 1·35 | 4·47 | 5·08 | 2·06 | 1·90 | 34·70 |
| 1873 | ... | 1·27 | ... | 1·38 | 4·15 | 1·24 | 3·75 | 2·19 | 2·15 | 13·65 | 0·46 | 0·31 | 30·55 |
| 1874 | .... | ... | ... | 0·49 | 9·85 | 7·65 | 8·01 | 1·99 | 3·66 | 7·85 | 1·54 | 1·37 | 42·41 |
| 1875 | 0·03 | ... | 3·47 | 0·05 | 5·35 | 3·35 | 5·57 | 1·24 | 0·79 | 2·15 | ... | 0·95 | 22·95 |
| 1876 | ... | ... | 3·01 | 2·96 | 2·90 | 2·72 | 6·99 | 1·65 | 1·06 | 0·70 | 0·60 | ... | 22·59 |
| 1877 | ... | ... | 1·08 | 3·40 | 3·59 | 5·07 | 0·80 | 3·17 | 10·43 | 10·98 | 2·52 | 1·13 | 42·17 |
| 1878 | ... | ... | 2·36 | 2·46 | 2·56 | 3·00 | 4·28 | 5·25 | 5·58 | 3·46 | 0·72 | 0·49 | 32·16 |
| 1879 | 0·03 | 0·94 | ... | 1·81 | 10·48 | 5·35 | 6·36 | 3·34 | 0·63 | 10·05 | 1·22 | ... | 40·21 |
| 1880 | ... | ... | 1·17 | 3·33 | 6·10 | 4·95 | 5·03 | 2·55 | 1·84 | 8·78 | 4·22 | ... | 37·67 |
| 1881 | ... | ... | 1·23 | 2·52 | 4·11 | 0·78 | 2·23 | 4·73 | 1·20 | 0·79 | 3·82 | ... | 21·41 |
| 1882 | 1·19 | ... | 0·18 | 1·46 | 9·38 | 6·99 | 17·80 | 5·02 | 2·22 | 6·77 | 2·78 | ... | 53·79 |
| 1883 | ... | ... | 1·11 | 2·15 | 5·43 | 2·33 | 13·18 | 8·15 | 1·22 | 11·85 | 7·66 | 1·88 | 54·96 |
| Mean | 0·42 | 0·16 | 0·97 | 1·82 | 5·32 | 4·38 | 6·51 | 3·25 | 3·04 | 6·98 | 2·49 | 0·57 | 35·91 |
| 1884 | 0·20 | ... | ... | 0·26 | 1·97 | 1·83 | 3·59 | 10·55 | 2·09 | 11·98 | 4·10 | 0·66 | 37·23 |
| 1885 | ... | ... | 0·16 | 1·00 | 5·64 | 4·18 | 2·63 | 4·17 | 8·57 | 10·05 | 0·31 | 2·80 | 39·51 |
| 1886 | .... | ... | 1·30 | 0·36 | 5·84 | 5·01 | 7·37 | 2·67 | 6·53 | 5·18 | 2·69 | 0·85 | 37·82 |
| Mean | 0·35 | 0·13 | 0·89 | 1·60 | 5·17 | 4·25 | 6·16 | 3·70 | 3·51 | 7·35 | 2·46 | 0·73 | 36·30 |

No. 335. HASSAN.

Latitude N. 13° 0′. Longitude E. 76° 8′. Elevation 3,150 feet.

Administration : MYSORE. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | 18·11 | ... | ... | ... | 3·34 | 2·10 | 2·67 | 0·09 | 6·31 | 4·01 | 3·46 | ... | 40·09 |
| 1872 | ... | ... | ... | ... | ... | 5·93 | 6·09 | ... | ... | ... | 3·18 | 4·01 | 19·21 |
| 1873 | ... | 2·01 | ... | 2·67 | 7·17 | 11·53 | 4·21 | 3·96 | ... | 4·33 | 0·56 | 0·07 | 36·51 |
| 1874 | ... | ... | .... | 0·71 | 4·00 | 2·10 | 2·43 | 0·73 | 1·89 | 2·54 | 0·74 | 0·09 | 15·23 |
| 1875 | ... | ... | 3·12 | 0·75 | 5·69 | 3·25 | 4·72 | 1·13 | 3·14 | 1·86 | 0·85 | 1·25 | 25·76 |
| 1876 | ... | ... | 0·92 | 0·95 | 3·24 | 1·52 | 5·31 | 1·98 | ... | 0·36 | ... | ... | 14·28 |
| 1877 | ... | ... | ... | 2·59 | ... | 7·45 | 1·51 | 2·84 | 8·24 | 13·59 | 0·57 | ... | 36·79 |
| 1878 | ... | ... | 1·97 | 2·84 | 2·60 | 2·25 | 3·19 | 6·19 | 2·60 | 5·53 | ... | ... | 27·17 |
| 1879 | ... | 0·15 | 0·24 | 1·59 | 9·52 | 5·68 | 6·42 | 1·61 | 0·12 | 2·99 | ... | ... | 28·32 |
| 1880 | .... | ... | ... | 0·45 | 6·82 | 3·90 | 1·61 | 2·62 | 0·28 | 7·90 | 3·72 | ... | 27·30 |
| 1881 | ... | ... | ... | 0·55 | 0·22 | ... | 1·14 | 0·85 | 1·26 | 0·20 | 2·47 | ... | 6·69 |
| 1882 | ... | ... | 0·99 | 0·25 | 4·97 | 6·48 | 13·50 | 5·27 | 2·72 | 5·40 | 1·47 | .... | 41·05 |
| 1883 | ... | ... | 1·89 | 2·28 | 5·39 | 3·99 | 10·45 | 9·54 | 1·06 | 11·19 | 3·29 | 2·00 | 51·08 |
| Mean | 1·39 | 0·17 | 0·70 | 1·20 | 4·07 | 4·32 | 4·87 | 2·83 | 2·12 | 4·61 | 1·56 | 0·57 | 28·41 |
| 1884 | ... | ... | ... | 0·20 | 4·25 | 2·55 | 2·26 | 4·32 | 1·47 | 7·05 | 1·52 | 0·20 | 23·82 |
| 1885 | ... | ... | ... | 1·25 | 7·00 | 4·14 | 3·02 | 2·25 | 4·65 | 5·90 | 1·80 | 3·50 | 33·51 |
| 1886 | ... | ... | ... | 0·79 | 8·43 | 3·59 | 5·98 | 1·73 | 5·72 | 8·94 | 2·66 | 0·79 | 38·63 |
| Mean | 1·13 | 0·14 | 0·57 | 1·12 | 4·54 | 4·15 | 4·66 | 2·82 | 2·47 | 5·11 | 1·64 | 0·74 | 26·09 |

No. 336. TUMKUR.

Latitude N. 13° 20′. Longitude E. 77° 9′. Elevation 2,682 feet.

Administration : MYSORE. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1837 | ... | ... | ... | ... | 4·10 | 0·60 | 2·70 | 3·20 | 1·80 | 4·20 | 9·40 | ... | 26·00 |
| 1838 | ... | ... | ... | 0·40 | 0·90 | 1·40 | 2·00 | 2·20 | 4·30 | 2·40 | 0·20 | ... | 13·80 |
| 1839 | ... | 0·70 | 0·30 | 3·20 | 3·80 | 4·40 | 0·20 | 5·90 | 8·30 | 3·80 | 0·40 | 0·20 | 31·20 |
| 1840 | ... | ... | ... | 2·50 | 1·90 | 2·20 | 0·40 | 1·60 | 7·90 | 5·60 | 0·60 | ... | 22·70 |
| 1841 | ... | ... | 0·60 | 1·20 | 3·70 | 3·50 | 0·70 | 4·40 | 7·10 | 8·60 | 0·40 | ... | 29·20 |
| 1842 | ... | ... | 0·50 | 0·80 | 3·60 | 4·70 | 2·60 | 3·10 | 8·70 | 3·50 | ... | ... | 27·50 |
| 1843 | ... | ... | ... | 0·90 | 8·30 | 2·80 | 1·50 | 2·20 | 6·50 | 18·10 | ... | 1·70 | 42·00 |
| 1844 | ... | ... | ... | 0·30 | 4·30 | 3·80 | 3·70 | 1·50 | 3·20 | 5·40 | ... | 2·50 | 24·70 |
| 1845 | 0·40 | ... | 0·30 | 1·10 | 3·00 | 5·40 | 0·30 | 0·60 | 13·20 | 0·90 | 0·30 | ... | 26·50 |
| 1846 | ... | ... | ... | 0·20 | 8·30 | 4·00 | 10·20 | 1·50 | 6·70 | 23·70 | 1·40 | 0·90 | 56·90 |
| 1847 | ... | 3·50 | ... | 2·10 | 5·90 | 0·40 | 5·50 | 1·50 | 1·80 | 9·50 | 1·30 | ... | 31·50 |
| 1848 | ... | ... | ... | 1·90 | 7·59 | 0·80 | 1·30 | 0·60 | 2·20 | 1·40 | 1·59 | ... | 17·20 |
| 1849 | ... | ... | ... | 6·40 | 3·90 | 2·00 | 1·80 | 6·80 | 3·00 | 7·40 | 0·30 | ... | 31·60 |
| 1850 | ... | 2·50 | ... | 2·60 | 1·20 | 1·20 | 1·80 | 11·20 | 4·80 | 10·30 | 0·50 | 0·20 | 36·30 |
| 1851 | ... | ... | ... | 2·40 | 4·60 | 1·20 | 7·50 | 2·30 | 7·60 | 4·60 | 1·10 | ... | 31·30 |

TUMKUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1852 | ... | ... | 0·50 | 0·50 | 5·10 | 5·60 | 13·20 | 8·20 | 14·40 | 5·60 | 1·60 | 2·70 | 57·40 |
| 1853 | 2·60 | ... | 2·50 | 1·80 | 5·30 | 0·70 | 0·30 | 4·30 | 1·20 | 1·20 | 1·20 | ... | 21·10 |
| 1854 | ... | ... | ... | 3·60 | 0·80 | 1·20 | ... | 9·80 | 0·70 | 13·80 | 0·10 | ... | 30·00 |
| 1855 | ... | 1·50 | 0·20 | 0·70 | 2·90 | 1·50 | ... | 3·70 | 7·50 | 4·50 | ... | ... | 22·50 |
| 1856 | ... | ... | 0·70 | 1·40 | 9·80 | 0·40 | 2·60 | 12·70 | 3·40 | 8·20 | .... | 0·40 | 39·60 |
| 1857 | ... | ... | 0·60 | 0·80 | 5·80 | 5·50 | 4·90 | 0·30 | 0·80 | 2·60 | 0·80 | ... | 22·10 |
| 1858 | ... | ... | 0·50 | ... | 15·00 | 1·20 | 3·00 | 0·90 | 8·10 | 26·20 | 0·70 | ... | 55·60 |
| 1859 | ... | ... | 0·50 | 1·60 | 2·30 | 1·20 | 4·60 | 5·60 | 6·40 | 1·40 | 2·80 | ... | 26·40 |
| 1860 | ... | 0·20 | ... | 1·10 | 3·30 | 3·80 | 1·50 | 15·40 | 1·40 | 3·30 | ... | ... | 30·00 |
| 1861 to 1869 | Records wanting. | | | | | | | | | | | | |
| 1870 | ... | ... | ... | ... | 5·30 | P | 6·75 | 12·54 | 10·63 | 20·89 | 0·80 | ... | P |
| 1871 | 3·13 | ... | 3·32 | 0·55 | 7·95 | 2·18 | 1·84 | 0·38 | 8·80 | 3·63 | 0·93 | ... | 32·71 |
| 1872 | ... | ... | ... | 0·54 | 4·96 | ... | 3·71 | 6·53 | ... | 3·71 | ... | 1·89 | 21·34 |
| 1873 | ... | ... | ... | 1·53 | ... | 3·63 | 1·07 | 4·01 | 3·03 | 6·74 | ... | ... | 20·01 |
| 1874 | ... | ... | ... | 0·48 | 9·72 | 3·87 | 5·76 | 6·29 | 19·31 | 15·22 | 1·32 | 0·03 | 62·00 |
| 1875 | 0·18 | ... | 0·52 | ... | ... | 8·28 | ... | ... | ... | .... | ... | ... | 8·98 |
| 1876 | ... | ... | 0·39 | 0·72 | 3·50 | 2·90 | 4·44 | 4·98 | 2·78 | 0·24 | 0·04 | ... | 19·99 |
| 1877 | ... | ... | 1·32 | ... | 2·38 | 6·88 | 2·38 | 2·06 | ... | 7·28 | 2·42 | 0·20 | 24·92 |
| 1878 | ... | ... | 0·46 | 0·45 | 4·95 | 3·56 | 5·84 | 17·03 | 4·67 | 6·26 | 0·53 | ... | 43·75 |
| 1879 | ... | 1·55 | ... | 0·13 | 5·70 | 2·00 | 12·72 | 4·22 | 2·95 | 4·85 | 0 21 | 0·03 | 34·36 |
| 1880 | ... | ... | 0·36 | 2·31 | 6·23 | 6·05 | 4·15 | 3·20 | 3·62 | 7·73 | 3·25 | 1·03 | 37·93 |
| 1881 | ... | ... | 0·62 | 1·86 | 1·92 | 1·40 | 0·31 | 8·12 | 6·36 | 2·62 | 4·15 | 0·03 | 27·39 |
| 1882 | 0·26 | ... | 0·06 | 1·28 | 3·03 | 1·11 | 5·97 | 5·77 | 8·62 | 4·00 | 9·30 | ... | 39·40 |
| 1883 | ... | ... | 0·23 | 1·84 | 3·38 | 0·94 | 4·30 | 12·17 | 1·17 | 12·19 | 2·04 | 0·72 | 38·98 |
| Mean | 0·17 | 0·26 | 0·38 | 1·29 | 4·59 | 3·86 | 3·46 | 5·18 | 5·34 | 7·15 | 1·31 | 0·33 | 33·32 |
| 1884 | 1·30 | ... | ... | 0·34 | 2·48 | 2·91 | 1·32 | 2·56 | 1·44 | 6·83 | 2·11 | 0·03 | 21·32 |
| 1885 | ... | ... | 1·24 | 0·15 | 3·92 | 2·00 | 2·96 | 2·23 | 4·90 | 6·01 | 0·43 | 2·23 | 26·07 |
| 1886 | ... | ... | 0·03 | 0·31 | 6·35 | 6·31 | 8·53 | 13·49 | 7·33 | 3·76 | 5·56 | 0·66 | 52·33 |
| Mean | 0·19 | 0·24 | 0·38 | 1·22 | 4·56 | 3·86 | 3·52 | 5·25 | 5·28 | 7·03 | 1·41 | 0·38 | 33·32 |

No. 337. BANGALORE.

Latitude N. 12° 59′. Longitude E. 77° 38′. Elevation 2,981 feet.

Administration: MYSORE. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1835 | ... | ... | 0·35 | 4·16 | 5·89 | 3·24 | 5·88 | 4·13 | 13·97 | 5·10 | 1·30 | ... | 44·02 |
| 1836 | Not on record. | | | | | | | | | | | | |
| 1837 | ... | ... | 0·20 | 1·30 | 5·30 | 4·10 | 4·10 | 6 50 | 1·60 | 10·10 | 9·80 | 1·30 | 44·30 |
| 1838 | ... | ... | 0·50 | 0·80 | 2·70 | 1·90 | ... | 4·50 | 3·40 | 1·10 | 1·10 | ... | 16·00 |
| 1839 | 0·60 | ... | 0·10 | 0·80 | 7·00 | 3·70 | 4·80 | 7·20 | 4·10 | 3·90 | ... | 0·20 | 32·40 |
| 1840 | ... | ... | 0·20 | 0·80 | 7·60 | 2·40 | 3·60 | 5·40 | 5·40 | 4·50 | 0·30 | ... | 30·20 |

## BANGALORE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1841 | ... | ... | ... | 1·90 | 3·00 | 1·90 | 2·60 | 10·40 | 8·90 | 8·00 | 1·30 | ... | 38·00 |
| 1842 | ... | ... | ... | 0·60 | 2·20 | 8·30 | 1·20 | 2·60 | 10·50 | 5·40 | 0·40 | ... | 31·20 |
| 1843 | 1·70 | ... | 1·60 | ... | 8·00 | 3·40 | 1·80 | 1·30 | 6·80 | 7·10 | ... | 5·50 | 37 20 |
| 1844 | 0·10 | 0·20 | ... | 2·60 | 9·30 | 5·50 | 2·90 | 1·40 | 4·30 | 1·90 | 0·40 | 5 80 | 34·40 |
| 1845 | 2·90 | ... | 0·40 | 2·80 | 1·90 | 7·30 | 2·50 | 1·80 | 9·50 | 2·80 | 0·30 | 0·50 | 32·70 |
| 1846 | ... | 0·10 | ... | 0·50 | 8·40 | 1·90 | 4·50 | 3·10 | 7·00 | 10·80 | 2·90 | 0·80 | 40 00 |
| 1847 | ... | 0·60 | ... | 0·80 | 3·80 | 1·20 | 11·40 | 4·50 | 3·50 | 9·10 | 1·60 | 0·80 | 37·50 |
| 1848 | ... | ... | ... | 2 70 | 7·90 | 1·70 | 5·20 | 7·30 | 11·50 | 2·10 | 1·40 | 0 50 | 40·30 |
| 1849 | 0·50 | ... | ... | 1·00 | 2 30 | 2·60 | 7·90 | 6 60 | 2 60 | 2·50 | 1·70 | 0·10 | 27·80 |
| 1850 | ... | 1·90 | ... | 4·10 | 0·50 | 6·20 | 2·40 | 14·20 | 9·80 | 7·10 | 2·90 | 0·30 | 49·40 |
| 1851 | ... | ... | ... | 0·20 | 4·90 | 1·20 | 7·10 | 5·10 | 7·90 | 5·20 | 3·70 | ... | 35·30 |
| 1852 | ... | ... | 1·30 | 1·80 | 6·50 | 1·50 | 10·20 | 6·70 | 15·50 | 9·20 | 0·90 | 1·50 | 55·10 |
| 1853 | 0·90 | ... | 6·40 | 1·30 | 5·70 | 1·50 | 0·70 | 12 90 | 2·70 | 1·90 | 0·70 | ... | 34·70 |
| 1854 | 0·80 | ... | ... | 0·80 | 3·50 | 1·90 | 1·20 | 8·30 | 3·90 | 7·90 | 1·40 | 0·20 | 29·90 |
| 1855 | 0·10 | 1·60 | 0·50 | 1·50 | 2·40 | 3·80 | 1·10 | 5·30 | 2·60 | 5·80 | ... | 2·40 | 27·10 |
| 1856 | ... | ... | ... | 3·80 | 11·30 | 0·60 | 5·20 | 12·90 | 5·80 | 5·70 | 1·20 | 1·80 | 48·30 |
| 1857 | ... | ... | ... | 2·20 | 6 70 | 4·20 | 2·90 | 1·50 | 5·40 | 5·10 | 2·30 | 0·10 | 30·40 |
| 1858 | ... | ... | ... | 0·40 | 4·50 | 0·70 | 3·30 | 1·40 | 8·00 | 19·50 | ... | ... | 37·80 |
| 1859 | ... | ... | 0·30 | 1·30 | 3·10 | 1·60 | 5·60 | 5·40 | 5·20 | 1·10 | 2·90 | 0·10 | 26 60 |
| 1860 | ... | ... | ... | 0·50 | 5·30 | 3·00 | 1·00 | 9·20 | 9·50 | 4·50 | ... | 0·20 | 33·20 |
| 1861 | 0·01 | ... | 0·50 | 0·90 | 5·60 | 3·60 | 1·70 | 6·10 | 4·00 | 1·10 | 7·00 | .... | 30·51 |
| 1862 | .... | 0·43 | 0·08 | 1·83 | 3·20 | 4·28 | 1·03 | 5·92 | 7·75 | 11·63 | 0·82 | 0·16 | 37·13 |
| 1863 | ... | ... | 5·45 | 0·76 | 6·85 | 3·16 | 1·92 | 6·14 | 4·49 | 6·26 | 0·18 | 0·80 | 36·01 |
| 1864 | ... | ... | ... | 0·56 | 4·27 | 5·25 | 2·36 | 7·78 | 7·31 | 3·96 | 1·99 | 0·14 | 33·62 |
| 1865 | ... | 0·26 | 0·71 | 3·49 | 3·16 | 4 82 | 11·15 | 7·20 | 1·54 | 1·99 | 1·58 | 0·12 | 36·62 |
| 1866 | ... | ... | ... | 0·45 | 1·95 | 2·35 | 4·05 | 2·15 | 8·65 | 11·51 | 0·68 | 1·71 | 33·50 |
| 1867 | ... | ... | 0·30 | 0·15 | 4·20 | 5·75 | 3·40 | 2·35 | 3·75 | 12·59 | 0·45 | 0·10 | 33·04 |
| 1868 | 0·46 | ... | 0·01 | 2·80 | 3·91 | 7·86 | 6·91 | 1·12 | 10·17 | 5·30 | 0·83 | ... | 39·37 |
| 1869 | 0·02 | 0·32 | 0·36 | 0·24 | 3·80 | 3·61 | 3·86 | 8·42 | 3 66 | 7·21 | 1·70 | 1·68 | 34·88 |
| 1870 | 0·29 | ... | 0·04 | 0·10 | 4·59 | 3·82 | 6·18 | 6·79 | 3·73 | 12·98 | 0·38 | 0·38 | 39·28 |
| 1871 | 0·06 | ... | 1·50 | 0·52 | 3·92 | 4·10 | 3·90 | 4·34 | 5·89 | 3·14 | 1·50 | 0·25 | 29·12 |
| 1872 | ... | ... | ... | 1·24 | 5·50 | 3·61 | 4·69 | 8·45 | 11·44 | 1·88 | 2·69 | 1·25 | 40 75 |
| 1873 | ... | 0·43 | ... | 1·35 | 0·13 | 1 44 | 0·71 | 8·27 | 5·50 | 11·11 | 0·16 | 0·04 | 29·14 |
| 1874 | ... | ... | ... | 0·72 | 15·51 | 1·73 | 6·54 | 8·36 | 16·00 | 6 52 | 1·26 | 0·01 | 56 65 |
| 1875 | ... | ... | 2·01 | 0·88 | 4·05 | 3·39 | 2·35 | 4·48 | 2·17 | 2·23 | 0·60 | 0·04 | 22·20 |
| 1876 | ... | ... | 1·04 | 0·52 | 4·58 | 2·35 | 1·83 | 4·01 | 1·72 | 0·72 | 0·58 | ... | 17·35 |
| 1877 | ... | ... | 0·65 | 2·21 | 3·42 | 3·01 | 1·13 | 2·91 | 12·73 | 8·81 | 2·77 | 0·23 | 37·87 |
| 1878 | ? | ... | ... | 2·68 | 3·76 | 2·59 | 5·84 | 11·37 | 8·00 | 5·74 | 0·81 | 0·02 | 40·81 ? |
| 1879 | 0·33 | 1·38 | 3·19 | 0·26 | 6·58 | 2·93 | 7·20 | 3·56 | 4·76 | 8·35 | 2·13 | ... | 40·67 |
| 1880 | 0 67 | ... | 0·41 | 2·16 | 9·35 | 3·91 | 6·68 | 11·74 | 2·78 | 10·95 | 2·84 | 0·21 | 51 70 |
| 1881 | 0·39 | ... | 0·36 | 0·63 | 3 20 | 2·16 | 0 22 | 8·08 | 3·79 | 4·43 | 4·21 | 0·03 | 27·44 |
| 1882 | 0·68 | ... | ... | 0·53 | 4·41 | 1·69 | 5·60 | 5·72 | 4·05 | 4·48 | 9·87 | ... | 37·03 |
| 1883 | ... | ... | 0·05 | 0·72 | 1·81 | 0·80 | 5·28 | 7·66 | 1·05 | 12·56 | 2·86 | 2·01 | 34·80 |
| Mean | 0·22 | 0·15 | 0·59 | 1·34 | 4·95 | 3·20 | 4·03 | 6·09 | 6·34 | 6·31 | 1·80 | 0·65 | 35·67 |
| 1884 | 0·20 | ... | 0·05 | 0·28 | 2·95 | 2·07 | 0·98 | 1·60 | 5·12 | 6·01 | 2·97 | 0·88 | 23·11 |
| 1885 | ... | ... | 0·83 | 0·21 | 6·43 | 3·17 | 4·91 | 0·81 | 6·24 | 14·46 | 1·32 | 1·37 | 39·75 |
| 1886 | ... | ... | 0·32 | 0·33 | 6·04 | 5·89 | 6·09 | 6·98 | 8·01 | 3·91 | 5·67 | 1·55 | 44·79 |
| Mean | 0·21 | 0·14 | 0·58 | 1·28 | 4·96 | 3·23 | 4·03 | 5·92 | 6·35 | 6·42 | 1·89 | 0·69 | 35·70 |

No. 338. KOLAR.

Latitude N. 13° 8′. Longitude E. 78° 10′. Elevation 2,786 feet.

Administration: MYSORE. Rainfall Province No. XX.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1870 | .... | ... | ... | 2·35 | 6·49 | 18·26 | 9·85 | 14·71 | 13·25 | 21·00 | 1·80 | 1·16 | 88·87 |
| 1871 | 3·60 | ... | 4·51 | 0·89 | 3·20 | 2·15 | 5·46 | 0·68 | 5·45 | 3·09 | 1·60 | ... | 30·63 |
| 1872 | ... | ... | ... | 0·55 | 6·93 | ... | 0·89 | 3·70 | ... | 1·73 | ... | 1·61 | 15·41 |
| 1873 | ... | ... | 0·05 | 0·48 | 2·48 | 0·83 | 0·53 | 5·23 | 5·95 | 8·66 | ... | 0·73 | 24·94 |
| 1874 | ... | ... | .. | ... | 4·94 | 4·35 | 3·60 | 1·68 | 12·53 | 9·33 | 0·90 | 0·35 | 37·68 |
| 1875 | ... | ... | 0·45 | ... | 2·40 | 3·54 | 1·05 | 3·23 | 2·25 | 1·93 | ... | 0·70 | 15·55 |
| 1876 | ... | ... | 0·42 | 0·08 | 1·69 | 4·44 | 2·89 | 1·11 | 0·80 | 0·34 | 1·45 | ... | 13·22 |
| 1877 | ... | ... | 2·05 | ... | 2·63 | 3·08 | 0·30 | 3·40 | ... | 5·18 | 3·48 | ... | 20·12 |
| 1878 | ... | ... | 0·36 | 2·90 | 1·38 | 3·09 | 5·17 | 9·75 | 6·48 | 7·49 | 3·05 | 0·20 | 39·87 |
| 1879 | 0·22 | 0·35 | 1·10 | ... | 5·14 | 1·63 | 6·42 | 2·66 | 3·55 | 4·84 | 0·38 | ... | 26·29 |
| 1880 | 0·32 | ... | ... | 2·05 | 2·17 | 1·94 | 3·56 | 3·76 | 3·60 | 7·67 | 5·04 | 0·19 | 30·30 |
| 1881 | ... | ... | 1·38 | 0·38 | 6·06 | 3·21 | 0·15 | 7·71 | 10·99 | 1·16 | 4·46 | 0·58 | 36·03 |
| 1882 | 0·57 | ... | 0·14 | 0·42 | 2·89 | 0·93 | 3·71 | 5·05 | 1·52 | 2·00 | 11·88 | 0·05 | 29·16 |
| 1883 | ... | 0·01 | 0·13 | 2·20 | 3·56 | 3·35 | 2·79 | 7·27 | 0·94 | 13·20 | 2·85 | 5·19 | 41·49 |
| Mean | 0·34 | 0·03 | 0·76 | 0·88 | 3·71 | 3·63 | 3·31 | 5·00 | 4·81 | 6·26 | 2·64 | 0·77 | 32·14 |
| 1884 | 0·06 | ... | ... | 0·38 | 0·93 | 1·52 | 0·62 | 3·85 | 2·60 | 7·59 | 2·69 | 2·05 | 22·29 |
| 1885 | ... | ... | 1·11 | 0·94 | 1·32 | 2·89 | 1·42 | 1·99 | 4·49 | 5·76 | 3·41 | 2·27 | 25·60 |
| 1886 | ... | ... | 0·08 | 0·08 | 4·45 | 2·15 | 6·26 | 3·42 | 5·63 | 2·54 | 4·46 | 0·56 | 29·63 |
| Mean | 0·28 | 0·02 | 0·69 | 0·80 | 3·45 | 3·37 | 3·22 | 4·66 | 4·71 | 6·09 | 2·79 | 0·92 | 31·00 |

No. 339. MERCARA.

Latitude N. 12° 26′. Longitude E. 75° 48′. Elevation 3,694 feet.

Administration: COORG. Rainfall Province No. XVIII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1863 | .... | .... | 0·45 | 1·25 | 2·30 | 4·78 | 41·74 | 39·46 | 22·95 | 10·08 | 10·98 | 1·40 | 135·39 |
| 1864 | ... | ... | ... | 1·52 | 4·72 | 24·79 | 74·40 | 19·00 | 11·22 | 3·35 | 0·98 | 1·40 | 141·38 |
| 1865 | ... | ... | 1·23 | 2·50 | 9·33 | 21·17 | 64·82 | 36·91 | 9·08 | 2·84 | 2·28 | ... | 150·16 |
| 1866 | ... | ... | ... | 1·63 | 2·41 | 38·59 | 23·52 | 17·66 | 9·14 | 14·68 | 0·13 | 2·28 | 110·04 |
| 1867 | ... | ... | 3·70 | 1·46 | 8·56 | 19·89 | 37·47 | 19·80 | 14·02 | 6·07 | 0·03 | ... | 111·00 |
| 1868 | 1·33 | ... | 1·39 | 1·92 | 3·49 | 30·98 | 19·80 | 25·92 | 4·55 | 4·35 | 1·52 | ... | 95·25 |
| 1869 | ... | ... | 1·23 | 2·12 | 2·05 | 26·24 | 44·18 | 14·14 | 11·75 | 9·86 | 1·90 | 0·20 | 113·66 |
| 1870 | 0·38 | ... | 3·54 | 0·10 | 2·24 | 30·21 | 32·29 | 19·66 | 11·68 | 6·64 | 1·82 | ... | 108·56 |
| 1871 | 3·74 | 0·58 | 0·72 | 5·04 | 2·88 | 28·18 | 39·09 | 21·38 | 13·30 | 5·36 | 9·81 | ... | 130·08 |
| 1872 | Details not available. | | | | | | | | | | | | 130·63 |
| 1873 | ... | ... | ... | 2·07 | 13·68 | 21·99 | 46·42 | 24·70 | 13·14 | 11·81 | ... | 0·14 | 133·95 |
| 1874 | ... | ... | ... | 1·50 | 13·93 | 49·22 | 43·69 | 18·97 | 14·68 | 6·39 | 0·23 | 0·85 | 149·46 |
| 1875 | 0·03 | ... | 0·49 | 1·66 | 3·69 | 18·98 | 39·07 | 18·58 | 8·15 | 3·31 | 0·19 | ... | 94·15 |
| 1876 | ... | .... | 2·98 | 2·42 | 2·65 | 12·77 | 52·80 | 26·85 | 6·92 | 1·61 | 0·29 | ... | 109·29 |
| 1877 | ... | ... | 0·64 | 4·87 | 1·51 | 26·29 | 14·31 | 30·59 | 18·73 | 11·76 | 0·97 | 1·79 | 111·46 |

MERCARA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1878 | ... | ... | 0·04 | 2·05 | 5·60 | 14·89 | 21·10 | 27·44 | 24·45 | 7·69 | 1·76 | 0·23 | 105·25 |
| 1879 | 0·12 | 0·39 | 1·80 | 0·77 | 24·62 | 24·38 | 26·94 | 34·96 | 16·21 | 8·84 | 2·05 | 0·27 | 141·35 |
| 1880 | 0·12 | ... | 0·58 | 5·29 | 2·86 | 31·01 | 51·38 | 17·74 | 10·67 | 10·59 | 5·80 | 0·14 | 136·18 |
| 1881 | 0·14 | ... | 1·73 | 1·71 | 4·34 | 19·52 | 34·04 | 29·56 | 8·93 | 3·57 | 6·18 | 0·20 | 109·92 |
| 1882 | 0·79 | ... | 1·00 | 1·03 | 6·05 | 61·53 | 101·64 | 21·50 | 16·95 | 14·09 | 2·53 | ... | 227·11 |
| 1883 | ... | ... | 2·09 | 4·56 | 4·10 | 22·14 | 56·67 | 32·45 | 9·53 | 11·34 | 5·36 | 2·64 | 150·88 |
| Mean | 0·33 | 0·05 | 1·18 | 2·27 | 6·05 | 26·38 | 43·27 | 24·86 | 12·80 | 7·71 | 2·74 | 0·57 | 128·21 |
| 1884 | 0·09 | ... | 0·14 | 2·31 | 4·45 | 16·75 | 28·55 | 41·28 | 14·96 | 9·42 | 2·69 | 0·24 | 120·88 |
| 1885 | ... | ... | 1·31 | 1·53 | 5·14 | 42·07 | 30·52 | 30·55 | 5·47 | 7·51 | 0·22 | 2·28 | 126·60 |
| 1886 | ... | ... | 0·06 | 0·86 | 10·26 | 7·66 | 44·00 | 22·30 | 6·40 | 11·90 | 2·68 | 0·12 | 106·24 |
| Mean | 0·29 | 0·04 | 1·09 | 2·18 | 6·12 | 25·83 | 42·11 | 25·71 | 12·30 | 7·96 | 2·63 | 0·62 | 126·88 |

No. 340. MYSORE.

Latitude N. 12° 18′. Longitude E. 76° 42′. Elevation 2,513 feet.

Administration: MYSORE. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1837 | ... | ... | 0·60 | 0·80 | 3·70 | 2·60 | 0·60 | 3·00 | 3·60 | 1·20 | 6·60 | ... | 22·70 |
| 1838 | ... | ... | 2·60 | 3·30 | ... | 0·60 | 0·20 | 0·90 | 7·30 | 3·30 | 1·80 | 0·20 | 20·20 |
| 1839 | ... | ... | ... | ... | ... | ... | 0·60 | 1·60 | 3·20 | 5·70 | 0·60 | ... | 11·70 |
| 1840 | ... | ... | ... | ... | 3·60 | 2·10 | 1·60 | 0·40 | 0·30 | 5·20 | 2·60 | ... | 15·80 |
| 1841 | ... | ... | ... | 1·10 | 4·60 | 2·00 | 0·30 | 3·50 | 11·90 | 7·60 | 2·10 | ... | 33·10 |
| 1842 | ... | 1·20 | ... | 0·40 | 2·90 | 4·10 | 0·70 | 3·50 | 3·50 | 7·50 | ... | ... | 23·80 |
| 1843 | ... | ... | ... | ... | 2·40 | 3·90 | 0·90 | 2·00 | 3·40 | 8·90 | ... | 1·10 | 22·60 |
| 1844 | 0·10 | 0·20 | ... | 2·60 | 9·40 | 5·50 | 2·90 | 1·40 | 4·30 | 2·00 | 0·40 | 5·80 | 34·60 |
| 1845 | 1·00 | 0·10 | 3·10 | 7·20 | 10·70 | 1·40 | 0·30 | 0·70 | 4·50 | 4·70 | 0·40 | ... | 34·10 |
| 1846 | ... | ... | ... | 1·40 | 4·40 | 0·20 | 4·90 | 2·10 | 1·10 | 11·10 | 1·50 | 0·50 | 27·20 |
| 1847 | ... | 0·30 | 0·20 | 1·80 | 5·90 | 0·80 | 1·90 | 0·50 | 0·60 | 10·50 | 1·50 | 1·40 | 25·40 |
| 1848 | ... | ... | ... | 4·70 | 4·50 | 0·50 | 1·00 | 2·50 | 8·30 | 3·20 | 2·20 | ... | 26·90 |
| 1849 | ... | ... | ... | 5·60 | 2·80 | 1·20 | 1·20 | 4·40 | 1·40 | 6·20 | 2·60 | ... | 25·40 |
| 1850 | 0·10 | 0·90 | ... | 4·60 | 5·50 | 1·10 | 1·80 | 8·30 | 6·40 | 5·80 | 2·20 | ... | 36·70 |
| 1851 | ... | ... | ... | 1·70 | 4·60 | 0·90 | 2·60 | 0·60 | 6·70 | 1·80 | 2·80 | 0·90 | 22·60 |
| 1852 | ... | ... | 0·40 | 3·30 | 4·10 | 2·20 | 15·30 | 2·40 | 4·50 | 9·50 | 9·50 | 1·60 | 52·80 |
| 1853 | 0·50 | ... | 4·80 | 3·20 | 10·50 | 0·60 | 1·40 | 4·60 | 4·80 | 7·10 | 0·30 | ... | 37·80 |
| 1854 | ... | ... | 0·10 | 1·30 | 4·60 | ... | 1·00 | 2·90 | 1·00 | 9·60 | ... | ... | 20·50 |
| 1855 | ... | 2·50 | 0·10 | 3·70 | 5·30 | 3·50 | 0·30 | 2·40 | 4·80 | 11·30 | ... | ... | 33·90 |
| 1856 | ... | ... | ... | 3·40 | 4·50 | 1·00 | 2·10 | 8·50 | 3·40 | 3·90 | ... | ... | 26·80 |
| 1857 | ... | ... | 0·60 | 3·90 | 6·30 | 1·00 | 2·60 | 1·60 | 2·40 | 11·50 | 0·40 | ... | 30·30 |
| 1858 | ... | ... | ... | 0·70 | 7·90 | ... | 1·30 | ... | 3·90 | 12·80 | 3·60 | ... | 30·20 |
| 1859 | ... | ... | 0·70 | 5·60 | 3·20 | 0·50 | 5·00 | 4·50 | 3·60 | 1·80 | 2·90 | ... | 27·80 |
| 1860 | ... | ... | ... | 1·10 | 10·60 | 0·60 | 0·50 | 6·30 | 2·20 | 9·20 | ... | 0·20 | 30·70 |
| 1861 | ... | ... | 0·50 | 6·40 | 7·50 | 0·50 | 2·20 | 4·20 | 7·10 | 0·50 | 1·30 | ... | 30·20 |

MYSORE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1862 | ... | 0·20 | ... | 4·00 | 4·90 | 1·30 | 0·70 | 5·00 | 5·20 | 12·30 | 2·30 | ... | 35·90 |
| 1863 | ... | ... | 1·60 | 4·60 | 6·50 | 1·30 | 1·60 | 3·60 | 1·80 | 9·40 | ... | 1·00 | 31·40 |
| 1864 | ... | ... | ... | 1·00 | 8·80 | 1·00 | 4·40 | 5·50 | 5·00 | 4·50 | 1·30 | 0·70 | 32·20 |
| 1865 | ... | ... | ... | 3·00 | 8·40 | 3·80 | 6·10 | 1·70 | 1·10 | 3·50 | 3·00 | ... | 30·60 |
| 1866 | ... | ... | ... | 1·70 | 7·10 | 3·10 | 1·30 | 6·30 | 5·00 | 9·00 | 0·50 | 1·40 | 35·40 |
| 1867 | 0·04 | ... | 5·17 | 1·10 | 5·89 | 3·35 | 2·78 | 0·78 | 4·34 | 4·92 | 0·13 | ... | 28·50 |
| 1868 | ... | ... | 0·14 | P | 6·13 | 5·01 | 2·93 | 1·11 | 9·54 | 2·54 | 0·16 | ... | 27·56 P |
| 1869 | ... | ... | 0·85 | 0·56 | 5·95 | 2·43 | 4·36 | P | 1·59 | 2·47 | 0·72 | ... | P |
| 1870 | ... | ... | ... | 0·80 | 1·95 | 4·72 | 1·47 | 2·30 | 3·30 | 6·49 | 0·35 | ... | 21·38 |
| 1871 | 1·30 | ... | 1·12 | 1·02 | 5·95 | 0·47 | 0·74 | 0·85 | 2·12 | 2·56 | 1·60 | ... | 17·73 |
| 1872 | ... | 0·70 | ... | 0·68 | 2·35 | 2·02 | 3·22 | 1·67 | 5·72 | 2·40 | 1·20 | 1·00 | 20·96 |
| 1873 | ... | 0·55 | ... | 1·67 | 2·47 | 0·65 | 0·46 | 4·37 | 1·57 | 10·15 | ... | ... | 21·89 |
| 1874 | ... | ... | ... | P | 4·75 | 1·86 | 3·21 | 4·87 | 3·56 | 4·96 | 1·00 | ... | 24·21 P |
| 1875 | ... | ... | 0·52 | 0·39 | 2·15 | 1·39 | 1·72 | 1·23 | 3·09 | 5·23 | 0·18 | ... | 15·90 |
| 1876 | ... | ... | 1·22 | ... | 6·03 | 1·00 | 1·44 | 7·55 | 2·72 | 1·80 | 0·25 | ... | 22·01 |
| 1877 | ... | ... | 1·02 | 2·05 | 2·37 | 2·80 | 0·85 | 1·27 | 6·81 | 7·72 | 1·15 | 0·60 | 26·64 |
| 1878 | ... | ... | 1·21 | 2·54 | 7·35 | 4·08 | 3·68 | 4·08 | 2·51 | 5·65 | 0·76 | ... | 31·86 |
| 1879 | 0·05 | ... | 0·85 | 2·56 | 5·31 | 2·38 | 4·97 | 2·65 | 2·31 | 4·68 | 0·56 | 0·48 | 26·80 |
| 1880 | ... | ... | 0·57 | 2·69 | 12·74 | 1·78 | 2·00 | 4·15 | 2·81 | 13·49 | 5·63 | 0·12 | 45·98 |
| 1881 | ... | ... | 2·22 | 0·86 | 7·44 | 0·53 | 1·00 | 4·58 | 2·95 | 1·49 | 5·15 | 0·25 | 26·47 |
| 1882 | 1·33 | ... | 0·45 | ... | 12·08 | 2·65 | 5·30 | 5·61 | 4·97 | 7·96 | 2·26 | 0·15 | 42·76 |
| 1883 | ... | ... | 2·66 | 1·25 | 9·61 | 1·11 | 2·41 | 7·20 | 0·54 | 11·90 | 4·15 | 4·04 | 44·87 |
| Mean | 0·09 | 0·14 | 0·71 | 2·23 | 5·65 | 1·82 | 2·34 | 3·24 | 3·89 | 6·32 | 1·65 | 0·46 | 28·54 |
| 1884 | ... | ... | ... | 2·23 | 3·94 | 3·48 | 0·31 | 1·85 | 1·69 | 8·59 | 1·08 | 0·23 | 23·40 |
| 1885 | ... | ... | 0·64 | 0·91 | 3·15 | 3·28 | 1·38 | 0·67 | 2·56 | 12·56 | 1·04 | 2·82 | 29·01 |
| 1886 | ... | ... | 0·28 | 0·55 | 7·51 | 1·33 | 4·36 | 4·98 | 7·85 | 3·94 | 1·80 | 0·16 | 32·76 |
| Mean | 0·09 | 0·13 | 0·68 | 2·17 | 5·61 | 1·87 | 2·32 | 3·20 | 3·90 | 6·44 | 1·63 | 0·49 | 28·53 |

No. 341 A. ASKA.

Latitude N. 19° 37′. Longitude E. 84° 42′. Elevation 600 feet.

Administration: MADRAS. Rainfall Province No. XI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | P | P | 0·58 | 1·20 | ... | 10·27 | 4·88 | 7·46 | 6·12 | 5·16 | 2·14 | ... | 37·81 P |
| 1864 | ... | 0·72 | 2·03 | 1·21 | 4·42 | 2·45 | 5·20 | 6·67 | 7·03 | 2·33 | 5·35 | 1·25 | 38·66 |
| 1865 | ... | ... | 5·19 | 1·57 | 5·46 | 5·42 | 7·39 | 6·93 | 5·42 | 1·45 | 0·20 | ... | 39·03 |
| 1866 | ... | 0·26 | 0·18 | 4·70 | 1·29 | 0·83 | 5·70 | 12·47 | 9·28 | 8·94 | ... | ... | 43·65 |
| 1867 | 0·54 | ... | 3·09 | 2·42 | 0·54 | 2·55 | 7·73 | 9·28 | 13·28 | 7·90 | 1·05 | ... | 48·38 |
| 1868 | ... | 0·20 | 0·82 | 0·46 | 2·70 | 14·44 | 5·44 | 5·86 | 8·67 | 0·03 | ... | ... | 38·62 |
| 1869 | ... | 0·13 | 0·45 | ... | 0·07 | 0·32 | 0·38 | 14·93 | 7·35 | 7·50 | ... | ... | 31·13 |
| 1870 | 1·33 | ... | 0·55 | 0·30 | 2·75 | 4·85 | 3·35 | 9·05 | 14·63 | 16·95 | 1·80 | ... | 55·56 |
| 1871 | ... | 0·35 | 0·52 | 7·55 | 3·55 | 4·55 | 12·05 | 4·05 | 3·60 | 0·85 | ... | ... | 36·97 |

ASKA—*continued*.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | ... | ... | 0·65 | 1·05 | 1·62 | 15·77 | 10·12 | 7·95 | 9·35 | 12·05 | 1·90 | 2·50 | 62·96 |
| 1873 | ... | ... | 0·40 | 0·50 | 1·75 | 2·75 | 5·90 | 7·84 | 5·20 | 6·20 | 0·37 | 0·82 | 31·73 |
| 1874 | ... | 0·15 | 1·95 | ... | 3·40 | 8·97 | 10·75 | 7·42 | 4·10 | 12·70 | 3·85 | ... | 53·29 |
| 1875 | 1·10 | ... | ... | 0·40 | 3·05 | 5·85 | 6·45 | 7·20 | 22·95 | 9·20 | ... | ... | 56·20 |
| 1876 | ... | ... | 0·38 | 1·25 | 3·02 | 4·10 | 7·45 | 10·10 | 8·35 | 6·70 | ... | ... | 41·35 |
| 1877 | 1·30 | 4·25 | 3·07 | 2·60 | 6·60 | 3·86 | 2·85 | 4·67 | 4·26 | 3·96 | 1·01 | ... | 38·43 |
| 1878 | ... | 0·45 | 1·16 | 1·60 | 7·29 | 1·35 | 8·59 | 13·37 | 6·70 | 10·21 | 7·23 | 3·21 | 61·16 |
| 1879 | ... | 0·70 | 0·70 | ... | 11·67 | 1·15 | 6·02 | 8·79 | 7·01 | 2·38 | 7·03 | 1·00 | 46·45 |
| 1880 | 0·20 | 1·10 | 0·21 | 1·26 | 2·23 | 7·74 | 10·80 | 12·11 | 8·62 | 6·71 | 2·56 | ... | 53·54 |
| 1881 | ... | ... | 2·75 | 1·80 | 1·05 | 8·53 | 4·66 | 9·62 | 9·76 | 8·12 | 1·50 | ... | 47·79 |
| 1882 | 0·20 | ... | ... | 2·12 | 5·62 | 3·91 | 7·64 | 5·25 | 14·24 | 8·23 | 1·61 | 0·31 | 49·13 |
| 1883 | ... | ... | 2·32 | 2·32 | 2·22 | 15·63 | 8·60 | 14·14 | 3·77 | 5·08 | 0·59 | 0·90 | 55·57 |
| Mean | 0·23 | 0·42 | 1·29 | 1·63 | 3·35 | 5·97 | 6·76 | 8·82 | 8·55 | 6·79 | 1·82 | 0·48 | 46·11 |
| 1884 | ... | 0·35 | ... | 0·75 | 1·09 | 6·50 | 7·70 | 5·05 | 11·40 | 5·07 | 0·07 | 0·40 | 38·38 |
| 1885 | ... | 3·00 | 0·85 | 1·80 | 2·20 | 4·70 | 9·49 | 6·20 | 6·53 | 3·47 | 3·25 | 2·98 | 44·47 |
| 1886 | 0·65 | ... | 3·56 | ... | 3·91 | 5·50 | 8·25 | 10·49 | 17·41 | 11·79 | 6·17 | 3·16 | 70·89 |
| Mean | 0·23 | 0·51 | 1·31 | 1·53 | 3·23 | 5·92 | 6·97 | 8·62 | 8·96 | 6·79 | 1·99 | 0·69 | 46·75 |

No. 341 B. ASKA (Sugar works).

Latitude N. 19° 36′. Longitude E. 84° 43′. Elevation 600 feet.

Administration : Madras.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1853 | P | P | P | P | P | P | P | 5·97 | 6·38 | 22·42 | ... | ... | P |
| 1854 | ... | ... | 2·26 | 0·17 | 1·56 | 4·64 | 12·69 | 11·57 | 12·20 | 2·87 | ... | ... | 47·96 |
| 1855 | Records wanting. | | | | | | | | | | | | |
| 1856 | ... | ... | 3·22 | 3·83 | 7·91 | 16·30 | 5·64 | 7·51 | 7·84 | 9·88 | 2·13 | ... | 64·26 |
| 1857 | ... | ... | 0·61 | 7·70 | 4·01 | 14·40 | 7·47 | 2·91 | 10·62 | 5·75 | ... | ... | 53·47 |
| 1858 | ... | 0·30 | 1·64 | 0·56 | 1·39 | 2·90 | 13·46 | 3·95 | 15·00 | 2·90 | ... | ... | 42·10 |
| 1859 | ... | ... | 0·24 | 4·44 | 4·65 | 7·58 | 7·64 | 7·18 | 8·34 | 1·55 | ... | 3·88 | 45·50 |
| 1860 | ... | 0·58 | ... | 1·19 | 0·33 | 5·45 | 6·58 | 5·42 | 10·28 | 1·08 | ... | ... | 30·91 |
| 1861 | 0·96 | ... | 1·44 | 0·45 | 2·05 | 4·82 | 12·00 | 10·16 | 10·03 | 3·38 | 6·08 | 0·08 | 51·45 |
| 1862 | 2·04 | ... | 1·12 | 0·14 | 1·53 | 7·54 | 5·69 | 12·86 | 12·58 | 13·51 | ... | ... | 57·01 |
| 1863 | ... | 0·84 | 0·58 | 1·21 | 0·49 | 10·35 | 4·97 | 7·88 | 6·49 | 5·81 | 1·03 | ... | 39·65 |
| 1864 | ... | 1·20 | 2·03 | 2·02 | 4·40 | 2·68 | 5·67 | 7·14 | 7·34 | 2·48 | 5·29 | 1·25 | 41·50 |
| 1865 | ... | 2·59 | 4·19 | 1·57 | 5·46 | 5·42 | 7·39 | 6·93 | 5·42 | 1·45 | 0·20 | ... | 40·62 |
| 1866 | ... | 0·26 | 0·18 | 4·70 | 1·29 | 0·83 | 5·70 | 12·45 | 9·08 | 8·94 | 0·08 | ... | 43·51 |
| 1867 | 0·54 | ... | 3·09 | P | P | P | P | P | P | P | P | P | P |
| 1868 | 0·10 | 0·67 | 0·86 | 0·52 | 3·62 | 13·71 | 5·95 | 5·38 | 5·27 | ... | ... | ... | 36·08 |
| 1869 | 0·15 | 0·54 | 1·67 | 0·22 | 0·91 | 3·91 | 8·36 | 12·02 | 5·87 | 6·60 | 0·05 | 0·08 | 40·38 |
| 1870 | 1·54 | ... | 0·19 | 0·09 | 1·46 | 3·34 | 3·96 | 8·65 | 13·18 | 16·75 | 1·97 | ... | 51·13 |
| 1871 | ... | 0·26 | 0·44 | 6·16 | 2·46 | 2·30 | 11·62 | 4·16 | 3·96 | ... | ... | ... | 31·36 |

ASKA. (SUGAR WORKS)—*continued.*

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1872 | ... | ... | 0·70 | 0·92 | 1·17 | 12·06 | 9·66 | 6·24 | 10·12 | 11·09 | 2·15 | 2·33 | 56·44 |
| 1873 | ... | ... | 0·66 | 0·78 | 2·93 | 3·24 | 5·48 | 7·15 | 5·17 | 6·40 | 0·46 | 0·76 | 33·03 |
| 1874 | 0·05 | ... | 2·06 | ... | 4·14 | 8·52 | 9·66 | 8·10 | 4·13 | 12·53 | 3·87 | ... | 53·06 |
| 1875 | 1·12 | ... | ... | 0·46 | 2·93 | 6·71 | 5·76 | 7·75 | 20·68 | 9·44 | ... | .... | 54·85 |
| 1876 | ... | ... | 0·45 | 1·45 | 3·25 | 3·67 | 7·07 | 9·41 | 9·73 | 6·75 | ... | ... | 41·78 |
| 1877 | 1·03 | 4·07 | 2·95 | 2·62 | 6·42 | 3·74 | ? | 4·09 | 5·36 | 2·89 | 1·47 | 0·03 | ? |
| 1878 | Records wanting. | | | | | | | | | | | | |
| 1879 | ? | 1·20 | 0·63 | ? | 14·89 | 2·33 | 6·45 | 4·11 | 9·48 | 2·76 | 6·65 | 0·95 | ? |
| 1880 | ? | 1·39 | 0·37 | 1·83 | 2·75 | 8·59 | 12·40 | 13·50 | 9·04 | 7·32 | 1·79 | ? | 58·98 |
| 1881 | ? | ? | ? | 2·26 | 3·03 | 8·28 | 4·67 | 10·61 | 9·96 | 8·71 | 1·83 | 0·05 | ? |
| 1882 | 0·10 | ? | ? | 2·25 | 6·02 | 5·60 | ? | 6·65 | 9·37 | 10·08 | 3·18 | 0·57 | ? |
| 1883 | ... | ... | 2·20 | 3·10 | 3·15 | 16·21 | 10·06 | 14·88 | 5·40 | 4·82 | 0·96 | 0·94 | 61·72 |
| Mean | 0·31 | 0·53 | 1·30 | 1·95 | 3·49 | 6·86 | 7·84 | 8·02 | 8·87 | 6·72 | 1·40 | 0·40 | 47·69 |
| 1884 | ... | 0·49 | 0·05 | 0·95 | 1·23 | 7·02 | 8·38 | 4·48 | 12·50 | 4·00 | 0·06 | 0·34 | 39·50 |
| 1885 | ... | 2·89 | 1·15 | 1·94 | 2·08 | 5·48 | 10·99 | 7·05 | 5·53 | 2·68 | 3·55 | 3·08 | 46·42 |
| 1886 | 0·35 | ... | 3·45 | ... | 4·88 | 6·04 | 5·94 | 10·24 | 15·47 | 11·52 | 5·93 | 4·13 | 67·95 |
| Mean | 0·29 | 0·60 | 1·33 | 1·85 | 3·41 | 6·79 | 7·90 | 7·95 | 9·09 | 6·66 | 1·57 | 0·62 | 48·06 |

No. 342. GANJAM.

Latitude N. 19° 22′. Longitude E. 85° 3′. Elevation 40 feet.

Administration : MADRAS. Rainfall Province No. XI.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1863 | ? | ? | ... | 0·10 | 1·71 | 11·34 | 3·62 | 5·29 | 12·47 | 10·89 | 1·28 | ... | 46·70 ? |
| 1864 | .... | 0·17 | 0·27 | 0·10 | 0·45 | 4·74 | 7·91 | 3·78 | 9·38 | 5·37 | 0·98 | ... | 33·15 |
| 1865 | ... | 1·70 | 2·60 | 2·05 | 1·29 | 3·50 | ... | 3·83 | 4·48 | 4·99 | .... | 0·25 | 24·69 |
| 1866 | 0·40 | 0·70 | ... | 4·70 | 1·60 | 2·72 | 3·89 | 11·80 | 9·69 | 6·80 | 0·41 | ... | 42·71 |
| 1867 | 0·20 | ... | 1·76 | 1·28 | 1·10 | 8·91 | 5·66 | 6·78 | 8·99 | 13·31 | 0·71 | ... | 48·70 |
| 1868 | 0·03 | 0·90 | 0·69 | 0·64 | 1·12 | 7·45 | 2·82 | 9·15 | 6·37 | .... | ... | ... | 29·17 |
| 1869 | ... | 1·70 | 0·90 | 1·30 | 0·30 | 4·35 | 7·10 | 3·31 | 10·60 | 7·90 | ... | ... | 37·46 |
| 1870 | 0·70 | ... | ... | 1·25 | 0·10 | 2·90 | 5·03 | 5·20 | 12·55 | 10·90 | ... | ... | 38·63 |
| 1871 | ... | 1·70 | 3·00 | 1·50 | 0·95 | 3·90 | 3·20 | 3·05 | 6·00 | 0·75 | ... | ... | 24·05 |
| 1872 | ... | 0·30 | ... | ... | 1·30 | 19·50 | 5·00 | 4·80 | 3·40 | 17·10 | 1·30 | 0·90 | 53·60 |
| 1873 | ... | ... | 0·60 | 0·45 | 0·40 | 1·50 | 2·30 | 7·10 | 12·50 | 18·30 | 0·80 | 1·00 | 44·95 |
| 1874 | 1·20 | ... | ... | ... | 1·10 | 4·70 | 5·70 | ... | 3·20 | 18·70 | .... | ... | 34·60 |
| 1875 | ... | ... | ... | 2·00 | 2·20 | 2·97 | 6·22 | 3·25 | 21·75 | 6·76 | ... | ... | 45·15 |
| 1876 | ... | ... | 0·20 | 0·85 | 0·60 | 3·70 | 3·95 | 6·00 | 10·20 | 10·20 | ... | ... | 35·70 |
| 1877 | 0·06 | 1·80 | 2·70 | 3·10 | 8·40 | 4·80 | 3·41 | 5·35 | 6·75 | 0·75 | 0·40 | ... | 37·52 |
| 1878 | 0·02 | 0·25 | 0·40 | ... | 2·40 | 0·80 | 2·90 | 11·02 | 5·96 | 13·45 | 5·95 | 10·71 | 52·96 |
| 1879 | ... | ... | 2·65 | ... | 3·10 | 4·17 | 3·01 | 2·87 | 13·01 | 11·08 | 3·75 | 2·30 | 45·94 |
| 1880 | 0·02 | 0·39 | ... | 0·05 | 2·15 | 12·30 | 8·80 | 11·30 | 14·95 | 9·60 | 8·10 | ... | 67·86 |
| 1881 | ... | ... | 3·52 | 0·06 | 1·59 | 3·81 | 5·30 | 8·05 | 4·50 | 8·60 | 0·65 | 0·45 | 36·53 |

GANJAM—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | 0·70 | ... | ... | 0·80 | 1·75 | 2·20 | 10·05 | 6·10 | 5·15 | 2·70 | 2·20 | ... | 31·65 |
| 1883 | 0·30 | ... | 0·55 | ... | 0·35 | 7·60 | 11·90 | 5·35 | 3·55 | 14·62 | ... | 1·45 | 45·67 |
| Mean | 0·18 | 0·49 | 0·95 | 0·96 | 1·62 | 5·61 | 5·13 | 5·88 | 8·79 | 9·18 | 1·26 | 0·81 | 40·86 |
| 1884 | ... | 1·15 | ... | 0·03 | 0·35 | 3·40 | 4·50 | 4·30 | 11·70 | 7·60 | ... | 0·70 | 33·73 |
| 1885 | ... | 1·35 | 1·20 | ... | 2·15 | 0·65 | 6·20 | 4·85 | 4·25 | 4·15 | 5·80 | 4·70 | 35·30 |
| 1886 | ... | ... | ... | 0·03 | 1·00 | 2·20 | 6·65 | 8·15 | 9·75 | 21·05 | 6·45 | 6·90 | 62·18 |
| Mean | 0·16 | 0·54 | 0·88 | 0·85 | 1·56 | 5·17 | 5·21 | 5·86 | 8·76 | 9·40 | 1·62 | 1·22 | 41·23 |

No. 343. VIZIANAGRAM.

Latitude N. 18° 7′. Longitude E. 83° 27′. Elevation 40 feet.

Administration: MADRAS. Rainfall Province No. XI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | ... | ... | ... | 0·60 | 2·50 | 3·60 | 1·70 | 7·70 | 3·70 | ... | ... | 19·80 |
| 1864 | ... | ... | 0·10 | ... | 0·40 | 1·70 | 1·00 | 4·10 | 5·95 | 3·35 | 0·50 | ... | 17·10 |
| 1865 | ... | 2·90 | ... | 0·90 | 2·80 | 5·20 | 2·80 | ... | 7·80 | 1·60 | ... | ... | 24·00 |
| 1866 | ... | ... | ... | 0·50 | 0·10 | 1·90 | 2·70 | 7·10 | 11·60 | 10·40 | 3·30 | ... | 37·60 |
| 1867 | 1·00 | ... | 0·30 | 0·50 | 2·10 | 4·90 | 9·10 | 7·40 | 9·00 | 5·80 | 0·90 | ... | 41·00 |
| 1868 | ... | ... | ... | ... | ... | 6·30 | 6·80 | 3·30 | 7·60 | 0·50 | ... | ... | 24·50 |
| 1869 | ... | 0·30 | 0·10 | ... | ... | 5·10 | 8·70 | 4·80 | 6·80 | 7·10 | 0·70 | ... | 33·60 |
| 1870 | 2·60 | ... | ... | ... | ... | 4·00 | 1·20 | 9·40 | 10·10 | 25·90 | 4·30 | ... | 57·50 |
| 1871 | ... | 1·00 | 2·20 | 1·60 | 3·30 | 5·00 | 1·50 | 6·40 | 7·10 | ... | 0·30 | ... | 28·40 |
| 1872 | ... | ... | ... | 1·00 | 0·20 | 7·10 | 6·90 | 7·30 | 6·70 | 7·80 | 3·00 | 1·00 | 41·00 |
| 1873 | ... | ... | ... | ... | 2·10 | 1·20 | 8·20 | 14·40 | 4·00 | 6·80 | 2·00 | 2·00 | 40·70 |
| 1874 | ... | ... | ... | 0·30 | 1·00 | 5·00 | 7·60 | 1·40 | 9·00 | 12·50 | 2·10 | ... | 38·90 |
| 1875 | 0·30 | ... | ... | ... | 2·00 | 1·60 | 3·60 | 8·95 | 9·80 | 11·25 | ... | ... | 37·50 |
| 1876 | ... | ... | ... | ... | 3·00 | 1·90 | 1·00 | 9·80 | 5·30 | 17·28 | ... | ... | 38·28 |
| 1877 | ... | 5·50 | 7·50 | 2·00 | 12·80 | 2·00 | 5·90 | 2·40 | 5·40 | 2·40 | ... | ... | 45·90 |
| 1878 | ... | ... | 1·40 | 0·20 | 2·40 | 5·55 | 8·65 | 6·15 | 8·80 | 19·00 | 4·50 | 21·95 | 78·60 |
| 1879 | ... | ... | ... | ... | 10·20 | 2·90 | 4·20 | 6·90 | 4·10 | 2·70 | 3·70 | 0·10 | 34·80 |
| 1880 | 0·10 | 0·10 | ... | 1·10 | 5·20 | 9·10 | 9·00 | 9·00 | 9·80 | 9·15 | 1·70 | ... | 54·25 |
| 1881 | ... | ... | 4·00 | 0·50 | 1·80 | 9·80 | 6·10 | 4·20 | 4·20 | 12·60 | 2·70 | ... | 45·90 |
| 1882 | ... | ... | ... | ... | 6·30 | 2·40 | 4·40 | 8·80 | 8·50 | 4·00 | 5·80 | 0·90 | 41·10 |
| 1883 | ... | ... | 1·10 | 0·50 | 2·10 | 5·20 | 2·70 | 8·50 | 1·80 | 7·60 | 0·80 | 0·90 | 31·20 |
| Mean | 0·19 | 0·47 | 0·80 | 0·43 | 2·78 | 4·30 | 5·03 | 6·29 | 7·19 | 8·16 | 1·73 | 1·28 | 38·65 |
| 1884 | ... | ... | ... | 1·00 | 0·40 | 1·80 | 3·00 | 6·30 | 17·40 | 4·20 | ... | 2·20 | 36·30 |
| 1885 | ... | 1·05 | 1·60 | 0·40 | 0·30 | 5·70 | 4·55 | 2·70 | 7·20 | 10·00 | 5·30 | 3·10 | 41·90 |
| 1886 | ... | ... | 0·90 | ... | 3·30 | 4·30 | 5·70 | 17·15 | 9·20 | 15·00 | 11·30 | 6·00 | 72·85 |
| Mean | 0·17 | 0·45 | 0·80 | 0·44 | 2·60 | 4·26 | 4·95 | 6·59 | 7·70 | 8·36 | 2·20 | 1·59 | 40·11 |

No. 344. BIMLIPATAM.

Latitude N. 17° 53′. Longitude E. 83° 30′. Elevation 30 feet.

Administration: MADRAS. Rainfall Province No. XI.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1860 | ... | ... | ... | ... | 1·10 | 2·10 | 1·97 | 2·31 | 12·24 | 2·33 | ... | ... | 22·05 |
| 1861 | ... | ... | 0·55 | 0·45 | 1·65 | 3·90 | 7·70 | 1·85 | ... | ... | ... | ... | 16·10 |
| 1862 | ... | ... | ... | ... | ... | ... | 4·60 | 3·00 | 7·55 | 6·40 | ... | ... | 21·55 |
| 1863 | ... | ... | ... | ... | ... | 0·22 | 3·24 | 2·65 | 9·50 | 10·70 | ... | ... | 26·31 |
| 1864 | ... | 6·00 | ... | ... | 0·40 | 5·10 | 2·90 | 3·10 | 4·90 | 1·50 | 2·20 | ... | 26·10 |
| 1865 | 0·10 | 2·30 | ... | 0·30 | 2·80 | 1·90 | 1·80 | ... | 8·90 | 1·00 | 1·65 | ... | 20·75 |
| 1866 | ... | ... | ... | ... | 0·70 | 3·40 | 1·50 | 4·90 | 7·10 | 16·40 | 0·50 | ... | 34·50 |
| 1867 | 1·10 | ... | ... | 1·00 | 1·40 | 5·00 | 4·00 | 5·90 | 4·80 | 18·10 | ... | ... | 41·30 |
| 1868 | ... | ... | ... | ... | 2·50 | 7·40 | 2·30 | 3·70 | 4·20 | 0·40 | ... | ... | 20·50 |
| 1869 | ... | ... | ... | ... | ... | 6·20 | 2·50 | 1·30 | 5·90 | 5·40 | 0·80 | ... | 22·10 |
| 1870 | 3·50 | ... | ... | ... | ... | 4·10 | 0·50 | 7·40 | 15·75 | 14·60 | 2·60 | ... | 48·45 |
| 1871 | 0·25 | 1·90 | ... | 1·90 | 1·65 | 3·20 | 0·70 | 4·10 | 1·95 | 0·35 | ... | ... | 16·00 |
| 1872 | .... | .... | ... | ... | ... | 5·05 | 7·63 | 10·75 | 2·90 | 7·80 | 4·60 | 0·28 | 39·01 |
| 1873 | ... | ... | ... | ... | 0·25 | 0·60 | 6·30 | 7·90 | 1·10 | 9·05 | 2·25 | 4·20 | 31·65 |
| 1874 | ... | 0·55 | ... | ... | 1·30 | 1·40 | 5·25 | 2·70 | 6·00 | 16·85 | 1·90 | ... | 25·95 |
| 1875 | 0·60 | ... | ... | 0·35 | 3·40 | 0·35 | 3·20 | 3·75 | 12·15 | 12·20 | ... | ... | 36·00 |
| 1876 | ... | ... | ... | ... | 1·50 | 3·10 | 1·10 | 1·95 | 4·10 | 11·90 | ... | ... | 23·65 |
| 1877 | 1·20 | 1·65 | 1·40 | 0·35 | 7·35 | 1·75 | 5·82 | 1·55 | 7·25 | 5·65 | 0·20 | ... | 34·17 |
| 1878 | ... | ... | 0·70 | 0·10 | 2·00 | 5·55 | 4·65 | 5·40 | 5·25 | 19·90 | 4·30 | 20·10 | 67·95 |
| 1879 | ... | ... | 0·20 | ... | 11·15 | 3·50 | 3·36 | 2·35 | 5·70 | 4·20 | 6·40 | 0·20 | 37·06 |
| 1880 | 0·45 | 0·42 | ... | 0·27 | 5·10 | 3·15 | 8·10 | 3·05 | 4·32 | 10·10 | 9·90 | 0·05 | 44·91 |
| 1881 | ... | ... | 0·55 | ... | 0·45 | 6·65 | 1·83 | 4·53 | 5·96 | 5·35 | 2·70 | ... | 28·02 |
| 1882 | ... | ... | ... | ... | 2·45 | 0·30 | 2·85 | 6·95 | 10·65 | 2·30 | 10·95 | 1·25 | 37·70 |
| 1883 | ... | ... | 0·50 | ... | 0·15 | 3·40 | 3·60 | 5·85 | 1·85 | 9·70 | 1·35 | 0·95 | 27·35 |
| Mean | 0·30 | 0·53 | 0·16 | 0·20 | 1·97 | 3·22 | 3·64 | 4·04 | 6·25 | 8·01 | 2·18 | 1·13 | 31·68 |
| 1884 | 0·65 | ... | ... | ... | 1·05 | 1·75 | 1·95 | 9·30 | 12·40 | 3·35 | ... | 0·50 | 30·95 |
| 1885 | ... | 0·60 | 1·30 | 0·10 | 1·10 | 4·00 | 3·00 | 2·70 | 3·30 | 5·50 | 6·35 | 2·05 | 30·00 |
| 1886 | ... | ... | 0·10 | ... | 3·45 | 3·05 | 4·80 | 10·90 | 4·85 | 18·35 | 8·70 | 5·85 | 60·05 |
| Mean | 0·29 | 0·50 | 0·20 | 0·19 | 1·96 | 3·19 | 3·60 | 4·44 | 6·32 | 8·13 | 2·49 | 1·31 | 32·62 |

No. 345. VIZAGAPATAM.

Latitude N. 17°. 42′. Longitude E. 83° 22′. Elevation 31 feet.

Administration: MADRAS. Rainfall Province No. XI.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1866 | ... | 1·60 | ... | 1·10 | ... | 2·80 | 2·40 | 6·90 | 4·10 | 16·90 | 1·80 | ... | 37·60 |
| 1867 | ... | ... | ... | 0·90 | 3·40 | 8·60 | 6·50 | 7·60 | 9·10 | 17·70 | 0·50 | ... | 54·30 |
| 1868 | ... | ... | ... | 0·30 | 3·60 | 14·20 | 2·90 | 5·90 | 4·60 | 0·30 | ... | ... | 31·80 |
| 1869 | 0·10 | ... | ... | 0·10 | 0·80 | 10·90 | 6·60 | 10·70 | 4·60 | 7·10 | 2·40 | 0·30 | 43·60 |
| 1870 | 3·00 | ... | ... | 0·80 | 0·10 | 7·90 | 4·10 | 5·10 | 16·10 | 19·90 | 3·30 | ... | 60·30 |
| 1871 | 0·10 | 1·10 | 2·90 | 7·60 | 2·40 | 3·10 | 2·30 | 3·70 | 3·20 | 9·30 | 0·50 | 0·10 | 27·30 |
| 1872 | ... | ... | ... | 0·10 | 1·50 | 6·00 | 9·20 | 8·80 | 7·60 | 13·20 | 3·50 | 4·00 | 53·90 |

VIZAGAPATAM—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1873 | ... | ... | ... | 0·10 | 3·60 | 1·90 | 9·20 | 10·20 | 3·70 | 17·60 | 1·50 | 4·40 | 52·20 |
| 1874 | 0·40 | ... | ... | ... | 2·10 | 3·00 | 4·70 | 3·10 | 9·80 | 21·00 | 3·30 | 0·50 | 47·90 |
| 1875 | 0·10 | 0·10 | ... | ... | 1·90 | 1·10 | 0·85 | 3·30 | 9·90 | 9·00 | 0·10 | 0·10 | 26·45 |
| 1876 | ... | ... | ... | ... | 1·50 | 2·00 | 3·80 | 5·60 | 6·30 | 19·20 | 2·30 | ... | 40·80 |
| 1877 | 1·60 | 1·60 | 1·60 | ... | 13·20 | 1·30 | 3·70 | 3·60 | 9·50 | 3·30 | 0·70 | ... | 40·10 |
| 1878 | ... | ... | 0·80 | 0·10 | 2·50 | 2·80 | 8·30 | 5·50 | 6·70 | 15·40 | 6·80 | 25·80 | 74·90 |
| 1879 | ... | ... | 0·10 | ... | 14·50 | 2·10 | 3·00 | 2·50 | 4·00 | 4·60 | 13·40 | 0·02 | 44·22 |
| 1880 | 0·50 | 0·60 | ... | 0·10 | 4·50 | 3·40 | 8·90 | 5·10 | 1·70 | 11·40 | 10·50 | 1·40 | 48·10 |
| 1881 | ... | ... | 0·70 | 0·20 | 1·40 | 8·60 | 2·70 | 7·50 | 5·80 | 4·30 | 4·80 | ... | 36·00 |
| 1882 | 0·10 | ... | ... | ... | 2·40 | 1·00 | 4·90 | 3·10 | 17·80 | 2·70 | 12·60 | 2·30 | 46·90 |
| 1883 | 0·90 | ... | ... | ... | 0·70 | 1·90 | 2·80 | 11·90 | 6·30 | 12·90 | 5·40 | 1·10 | 43·90 |
| Mean | 0·38 | 0·28 | 0·34 | 0·63 | 3·34 | 4·59 | 4·84 | 6·12 | 7·27 | 10·93 | 4·08 | 2·22 | 45·02 |
| 1884 | 0·90 | 0·60 | ... | 0·10 | 0·60 | 4·60 | 2·90 | 11·50 | 10·00 | 6·00 | ... | ... | 36·60 |
| 1885 | 0·30 | ... | 1·90 | ... | 0·30 | 3·00 | 3·70 | 3·80 | 13·20 | 8·20 | 7·40 | 2·80 | 44·60 |
| 1886 | ... | ... | 0·20 | ... | 5·00 | 3·20 | 7·50 | 13·70 | 5·20 | 30·20 | 12·00 | 2·50 | 79·50 |
| Mean | 0·38 | 0·27 | 0·39 | 0·55 | 3·14 | 4·42 | 4·82 | 6·62 | 7·59 | 11·49 | 4·42 | 2·16 | 46·25 |

No. 346. NARSAPATNAM.

Latitude N. 17° 40′. Longitude E. 82° 39′. Elevation 1,500 feet.

Administration: MADRAS. Rainfall Province No. XI.

| Year. | Inches of Rainfall. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 1·90 | ... | ... | 0·30 | 2·10 | 9·00 | 5·30 | 1·70 | 10·90 | 20·40 | 2·50 | ... | 54·10 |
| 1871 | ... | 3·15 | 1·65 | 0·65 | 2·15 | 4·45 | 1·45 | 0·72 | 4·22 | 2·76 | 0·22 | ... | 21·42 |
| 1872 | ... | ... | ... | 0·70 | 0·60 | 4·74 | 10·29 | 8·19 | 12·61 | 5·76 | 1·55 | 0·50 | 44·94 |
| 1873 | ... | ... | ... | 2·30 | 5·00 | 2·20 | 5·40 | 13·10 | 5·80 | 10·40 | 1·10 | 2·50 | 47·80 |
| 1874 | ... | ... | 0·20 | ... | 2·90 | 7·40 | 3·10 | 4·40 | 5·70 | 14·00 | 0·50 | ... | 38·20 |
| 1875 | ... | ... | ... | 0·30 | 4·40 | 1·00 | 5·80 | 2·00 | 13·70 | 10·70 | ... | ... | 37·90 |
| 1876 | ... | ... | 1·00 | 0·20 | 1·75 | 7·70 | 3·45 | 5·50 | 4·55 | 3·80 | 1·25 | ... | 29·20 |
| 1877 | 3·00 | 1·90 | 2·10 | 1·70 | 8·30 | 0·85 | 1·70 | 3·90 | 8·00 | 3·00 | 0·30 | ... | 34·75 |
| 1878 | ... | ... | 1·05 | 1·20 | 5·75 | 2·95 | 10·35 | 12·40 | 9·35 | 11·30 | 2·35 | 6·73 | 63·43 |
| 1879 | ... | ... | 0·93 | ... | 10·60 | 7·98 | 3·19 | 6·40 | 7·60 | 5·80 | 12·30 | ... | 54·80 |
| 1880 | 0·60 | 0·40 | ... | 1·95 | 1·90 | 4·50 | 4·50 | 3·00 | 6·15 | 6·75 | 4·00 | 1·30 | 35·05 |
| 1881 | ... | ... | 1·70 | 1·90 | 1·75 | 8·70 | 3·30 | 3·95 | 6·25 | 5·30 | 5·80 | ... | 38·65 |
| 1882 | ... | ... | ... | 2·10 | 5·00 | 1·60 | 5·30 | 4·10 | 15·50 | 6·70 | 14·00 | 0·50 | 54·80 |
| 1883 | ... | ... | 0·80 | 1·30 | 2·85 | 2·55 | 3·80 | 7·20 | 5·50 | 9·30 | 0·80 | 1·10 | 35·20 |
| Mean | 0·39 | 0·39 | 0·67 | 1·04 | 3·93 | 4·69 | 4·78 | 5·47 | 8·27 | 8·28 | 3·33 | 0·90 | 42·14 |
| 1884 | 0·20 | 1·40 | 2·90 | 1·80 | 4·10 | 0·80 | 4·05 | 6·20 | 8·50 | 3·48 | ... | 1·40 | 34·83 |
| 1885 | 0·20 | 0·80 | 2·30 | 1·10 | 3·60 | 7·10 | 3·13 | 4·20 | 8·30 | 6·80 | 5·30 | 3·90 | 46·73 |
| 1886 | ... | ... | 1·80 | ... | 7·25 | 3·90 | 15·15 | 11·25 | 7·75 | 14·80 | 3·50? | 2·20 | 67·60? |
| Mean | 0·35 | 0·45 | 0·97 | 1·03 | 4·12 | 4·55 | 5·25 | 5·78 | 8·26 | 8·30 | 3·26 | 1·18 | 43·50 |

No. 347. COCANADA.

Latitude N. 16° 57′. Longitude E. 82° 16′. Elevation 20 feet.

Administration: MADRAS. Rainfall Province No. XI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | ... | ... | 2·40 | 0·45 | 3·04 | 6·98 | 3·85 | 10·20 | 8·20 | 0·96 | ... | 36·08 |
| 1864 | ... | .... | 0·15 | ... | 0·93 | 4·58 | 1·33 | 1·27 | 2·92 | 2·75 | 6·58 | 0·34 | 19·85 |
| 1865 | ... | 1·65 | ... | 2·40 | 3·03 | 0·85 | 2·61 | 7·11 | 8·17 | ... | ... | ... | 25·82 |
| 1866 | ... | ... | ... | ... | ... | 1·25 | 5·29 | 6·58 | 2·67 | 9·60 | 0·84 | ... | 26·23 |
| 1867 | 0·80 | ... | ... | ... | 0·69 | 3·17 | 3·32 | 6·25 | 4·18 | 11·20 | 1·31 | ... | 30·92 |
| 1868 | ... | ... | ... | 0·15 | 1·19 | 11·91 | 7·34 | 6·74 | 4·84 | ... | ... | ... | 32·17 |
| 1869 | 0·25 | ... | ... | 1·14 | 1·56 | 9·03 | 3·87 | 4·22 | 5·86 | 4·47 | 2·71 | 2·20 | 35·31 |
| 1870 | 1·80 | ... | ... | 0·65 | 0·09 | 4·29 | 7·33 | 3·17 | 13·95 | 17·68 | 1·38 | ... | 50·34 |
| 1871 | 0·45 | 0·06 | 1·22 | ... | 2·28 | 1·80 | 6·90 | 2·65 | 3·48 | 1·20 | 6·05 | ... | 26·09 |
| 1872 | ... | ... | ... | ... | 0·80 | 6·35 | 3·35 | 6·55 | 9·55 | 14·75 | 5·15 | 2·30 | 48·80 |
| 1873 | ... | ... | ... | 1·30 | 1·40 | 1·38 | 7·05 | 4·45 | 7·87 | 26·53 | 0·70 | ... | 50·68 |
| 1874 | ... | ... | ... | ... | 4·70 | 6·05 | 7·20 | 3·20 | 7·05 | 14·15 | 0·95 | ... | 43·30 |
| 1875 | 0·60 | ... | ... | ... | 3·60 | 3·75 | 3·90 | 3·85 | 11·20 | 11·20 | 1·65 | ... | 39·75 |
| 1876 | ... | ... | ... | ... | .... | 2·00 | 3·85 | 8·30 | 0·65 | 2·88 | ... | ... | 17·68 |
| 1877 | 1·05 | 2·75 | 0·50 | ... | 9·40 | 1·05 | 3·97 | 6·40 | 7·10 | 9·00 | ... | ... | 41·22 |
| 1878 | ... | ... | ... | 0·80 | 4·45 | 1·53 | 13·89 | 10·48 | 6·80 | 12·53 | 6·62 | 7·50 | 64·60 |
| 1879 | ... | ... | ... | ... | 8·81 | 5·39 | 3·14 | 6·70 | 6·24 | 9·13 | 9·10 | ... | 48·51 |
| 1880 | 0·23 | 0·55 | ... | 0·42 | 0·95 | 4·43 | 4·58 | 1·46 | 2·37 | 7·90 | 10·87 | 0·78 | 34·54 |
| 1881 | ... | ... | 1·63 | 0·98 | 1·11 | 5·10 | 4·20 | 6·31 | 9·79 | 1·71 | 4·71 | ... | 35·54 |
| 1882 | ... | ... | ... | ... | 0·72 | 2·18 | 5·61 | 2·24 | 8·57 | 2·43 | 6·93 | 5·55 | 34·23 |
| 1883 | ... | ... | ... | ... | 0·37 | 4·11 | 2·84 | 5·15 | 1·96 | 13·31 | 9·97 | 0·77 | 38·48 |
| Mean | 0·25 | 0·24 | 0·17 | 0·49 | 2·22 | 3·96 | 5·17 | 5·09 | 6·45 | 8·60 | 3·59 | 0·93 | 37·16 |
| 1884 | 0·72 | 0·45 | ... | 0·33 | 0·14 | 2·16 | 7·15 | 9·99 | 8·24 | 4·76 | 0·35 | 0·19 | 34·48 |
| 1885 | ... | 0·15 | 0·40 | ... | 3·41 | 4·11 | 9·17 | 3·69 | 8·01 | 11·00 | 5·90 | 2·78 | 48·62 |
| 1836 | ... | ... | 0·90 | ... | 2·73 | 11·87 | 7·24 | 4·34 | 5·03 | 19·21 | 2·80 | 1·91 | 56·03 |
| Mean | 0·25 | 0·23 | 0·20 | 0·44 | 2·20 | 4·22 | 5·50 | 5·21 | 6·53 | 8·98 | 3·52 | 1·01 | 38·29 |

No. 348. RAJAHMUNDRY.

Latitude N. 16° 58′. Longitude E. 81° 50′. Elevation 68 feet.

Administration: MADRAS. Rainfall Province No. XI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1854 | ... | 3·10 | ... | 0·15 | 1·05 | 1·50 | 10·60 | 5·90 | 11·60 | 10·55 | ... | ... | 44·45 |
| 1855 to 1862 | Records wanting. | | | | | | | | | | | | |
| 1863 | ... | ... | ... | 2·60 | 0·30 | 3·80 | 8·60 | 5·00 | 6·70 | 3·20 | 0·40 | ... | 30·60 |
| 1864 | ... | ... | ... | ... | 2·00 | 7·15 | 6·30 | 4·45 | 1·20 | ... | 7·30 | ... | 28·60 |
| 1865 | ... | ... | ... | 2·00 | 6·85 | 1·15 | 2·10 | 10·05 | 8·10 | ... | ... | ... | 30·25 |
| 1866 | ... | ... | ... | 5·50 | 8·60 | 0·50 | 7·40 | 9·00 | 4·05 | 15·25 | ... | ... | 50·30 |
| 1867 | ... | ... | ... | ... | 2·70 | 0·60 | 7·90 | 6·80 | 3·55 | 7·30 | ... | ... | 28·85 |

RAJAHMUNDRY—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ... | ... | ... | 3·15 | 2·55 | 6·40 | 15·10 | 2·65 | 4·75 | 1·05 | ... | ... | 35·65 |
| 1869 | ... | ... | ... | 0·70 | 2·00 | 5·35 | 6·36 | 0·83 | 6·44 | 3·50 | ... | ... | 25·18 |
| 1870 | 0·30 | ... | ... | 0·37 | 0·20 | 2·85 | 4·65 | 2·42 | 13·95 | 10·75 | 1·15 | ... | 36·64 |
| 1871 | 0·55 | 0·30 | 1·95 | 2·50 | 5·75 | 7·10 | 7·85 | 4·65 | 3·04 | 0·80 | 4·03 | ... | 38·52 |
| 1872 | ... | ... | ... | 0·04 | 2·11 | 10·95 | 7·10 | 14·30 | 6·30 | 13·10 | ... | ... | 53·90 |
| 1873 | ... | ... | ... | 0·10 | 0·30 | 1·40 | 7·90 | 4·70 | 10·50 | 22·60 | 0·50 | ... | 48·00 |
| 1874 | ... | ... | 0·80 | 0·30 | 2·20 | 4·40 | 7·30 | 1·70 | 6·40 | 5·40 | ... | ... | 28·50 |
| 1875 | ... | ... | 0·20 | ... | 6·55 | 2·22 | 4·60 | 4·30 | 8·25 | 9·25 | ... | ... | 35·37 |
| 1876 | ... | ... | ... | ... | 2·00 | 2·11 | 5·53 | 10·15 | 6·66 | 2·36 | ... | ... | 28·81 |
| 1877 | 2·95 | 1·97 | 0·16 | 0·75 | 5·85 | 2·18 | 2·48 | 2·96 | 7·10 | 3·00 | ... | ... | 29·40 |
| 1878 | ... | ... | ... | 0·45 | 3·30 | 7·00 | 13·05 | 18·00 | 7·00 | 8·30 | 4·30 | 0·10 | 61·50 |
| 1879 | ... | ... | 1·20 | ... | 6·27 | 6·00 | 4·32 | 10·17 | 2·05 | 5·57 | 6·02 | ... | 41·60 |
| 1880 | ... | 0·80 | ... | 1·10 | 1·60 | 5·10 | 8·85 | 2·00 | 4·35 | 3·35 | 2·60 | 0·20 | 29·95 |
| 1881 | ... | ... | 0·50 | 2·65 | 2·00 | 4·60 | 5·00 | 7·90 | 15·10 | ... | 1·10 | ... | 38·85 |
| 1882 | ... | ... | ... | 0·60 | 3·15 | 5·85 | 4·41 | 6·30 | 14·11 | 3·03 | 7·62 | ... | 45·07 |
| 1883 | ... | ... | ... | ... | 2·15 | 6·30 | 5·84 | 3·05 | 4·55 | 12·50 | 1·90 | ... | 36·29 |
| Mean | 0·17 | 0·28 | 0·22 | 1·04 | 3·16 | 4·30 | 6·97 | 6·24 | 7·08 | 6·40 | 1·69 | 0·01 | 37·56 |
| 1884 | 0·45 | 0·55 | ... | 0·15 | 4·45 | 2·80 | 7·75 | 12·55 | 12·05 | 2·20 | ... | 0·30 | 43·25 |
| 1885 | 0·10 | ... | 0·35 | 0·35 | 2·78 | 2·80 | 8·20 | 4·95 | 8·30 | 3·75 | 2·30 | 3·60 | 36·58 |
| 1886 | ... | ... | 1·60 | ... | 5·18 | 12·05 | 10·60 | 10·30 | 2·20 | 16·60 | 2·95 | 0·90 | 62·38 |
| Mean | 0·17 | 0·27 | 0·27 | 0·94 | 3·28 | 4·49 | 7·19 | 6·57 | 7·13 | 6·54 | 1·69 | 0·20 | 38·74 |

No. 349. ELLORE.

Latitude N. 16° 43′. Longitude E. 81° 9′. Elevation 78 feet.

Administration: MADRAS. Rainfall Province No. XI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | ... | ... | 2·00 | ... | 2·00 | 5·65 | 5·47 | 8·55 | 0·90 | ... | ... | 24·57 |
| 1864 | ... | 0·55 | ... | ... | 1·90 | 3·50 | 5·92 | 2·60 | 2·47 | 1·00 | 16·03 | ... | 33·97 |
| 1865 | ... | ... | ... | 3·50 | 3·50 | 1·07 | 4·77 | 11·10 | 7·88 | 0·35 | 1·05 | ... | 33·22 |
| 1866 | ... | ... | ... | 1·65 | 0·80 | 5·00 | 7·10 | 4·25 | 5·10 | 9·10 | 0·30 | ... | 33·30 |
| 1867 | 0·90 | ... | ... | 2·40 | 2·50 | 2·20 | 2·20 | 7·10 | 9·10 | 4·70 | 0·60 | ... | 31·70 |
| 1868 | ... | ... | ... | 0·40 | 1·05 | 5·90 | 4·85 | 3·87 | 2·35 | 0·90 | ... | ... | 19·32 |
| 1869 | ... | ... | 1·70 | 0·35 | 0·12 | 8·50 | 5·05 | 5·35 | 6·55 | 5·85 | 0·55 | ... | 34·02 |
| 1870 | 2·00 | ... | ... | ... | 0·10 | 1·97 | 5·35 | 5·55 | 4·47 | 10·10 | 0·95 | ... | 30·49 |
| 1871 | 2·00 | 0·20 | 2·20 | 0·71 | 2·10 | 1·73 | 7·44 | 4·20 | 8·70 | 0·85 | 3·45 | 0·80 | 34·38 |
| 1872 | ... | 0·10 | ... | ... | 0·97 | 5·50 | 3·50 | 7·23 | 12·32 | 19·59 | 0·10 | 4·75 | 54·06 |
| 1873 | ... | ... | ... | 0·75 | 1·35 | 2·65 | 4·60 | 6·32 | 5·55 | 10·86 | 1·70 | 0·04 | 33·82 |
| 1874 | ... | ... | 0·49 | ... | 2·04 | 6·68 | 10·86 | 2·77 | 12·09 | 8·82 | 2·05 | 0·70 | 46·50 |
| 1875 | ... | 1·10 | 1·00 | 0·70 | 0·41 | 2·11 | 4·29 | 9·18 | 9·75 | 8·30 | ... | ... | 36·84 |
| 1876 | ... | ... | 0·20 | ... | 1·75 | 3·16 | 6·02 | 4·98 | 4·15 | ... | ... | ... | 20·26 |
| 1877 | 0·70 | ... | 1·55 | 0·50 | 1·75 | 1·27 | 3·70 | 6·79 | 7·58 | 8·72 | ... | ... | 32·56 |
| 1878 | ... | ... | ... | ... | 3·33 | 1·65 | 12·04 | 14·10 | 16·08 | 16·75 | 2·25 | 1·20 | 67·40 |
| 1879 | ... | ... | 0·25 | ... | 5·90 | 5·85 | 1·40 | 10·40 | 5·70 | 2·80 | 4·85 | ... | 37·15 |

ELLORE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1880 | ... | ... | ... | 1·20 | ... | 1·20 | 3·75 | 3·97 | 3·05 | 2·00 | 3·50 | 0·30 | 18·97 |
| 1881 | ... | ... | 0·50 | ... | 1·30 | 11·45 | 1·15 | 10·15 | 11·00 | 1·45 | 1·25 | ... | 38·25 |
| 1882 | 0·30 | ... | ... | ... | 1·95 | 2·65 | 8·36 | 3·05 | 13·55 | 6·45 | 14·10 | ... | 50·41 |
| 1883 | ... | ... | ... | ... | ... | 5·95 | 5·30 | 5·50 | 2·65 | 7·55 | 0·95 | ... | 27·90 |
| Mean | 0·28 | 0·09 | 0·38 | 0·67 | 1·56 | 3·90 | 5·40 | 6·38 | 7·55 | 6·05 | 2·56 | 0·37 | 35·19 |
| 1884 | ... | 1·00 | 0·75 | ... | ... | 2·65 | 9·47 | 6·35 | 5·10 | 1·85 | 0·55 | ... | 27·72 |
| 1885 | ... | ... | 1·45 | ... | 2·45 | 9·49 | 5·67 | 3·12 | 10·26 | 2·91 | 2·82 | 2·20 | 40·37 |
| 1886 | ... | ... | 1·00 | ... | 2·58 | 6·56 | 10·41 | 18·14 | 3·43 | 11·21 | 2·05 | 0·75 | 56·13 |
| Mean | 0·25 | 0·12 | 0·46 | 0·59 | 1·58 | 4·20 | 5·79 | 6·73 | 7·39 | 5·96 | 2·46 | 0·45 | 35·98 |

No. 350. MASULI PATAM.

Latitude N. 16° 9′. Longitude E. 81° 12′. Elevation 10 feet.

Administration : MADRAS. Rainfall Province No. XI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | ... | ... | ... | 0·10 | 3·60 | 3·80 | 2·00 | 8·32 | 7·39 | 0·30 | ... | 25·51 |
| 1864 | ... | ... | ... | ... | 9·25 | 4·93 | 11·50 | 4·40 | 2·71 | 1·82 | 0·50 | ... | 35·11 |
| 1865 | ... | ... | ... | ... | 1·90 | 3·12 | 1·02 | 1·30 | 7·58 | 9·90 | 0·93 | 0·25 | 26·00 |
| 1866 | ... | 0·20 | ... | ... | ... | 0·80 | 5·33 | 6·33 | 1·80 | 10·69 | 2·65 | 0·30 | 28·10 |
| 1867 | 1·07 | ... | ... | ... | 6·33 | 2·27 | 1·49 | 6·55 | 12·63 | 5·41 | 2·00 | 1·70 | 33·45 |
| 1868 | ... | ... | ... | ... | 1·98 | 6·20 | 12·55 | 5·13 | 5·89 | 3·27 | ... | ... | 35·02 |
| 1869 | ... | ... | 0·80 | 0·10 | 0·30 | 4·07 | 4·75 | 7·25 | 8·31 | 9·82 | 3·68 | ... | 39·08 |
| 1870 | 0·09 | ... | ... | ... | ... | 3·34 | 6·22 | 2·82 | 9·45 | 18·88 | 0·80 | ... | 41·60 |
| 1871 | 1·40 | 1·25 | 4·40 | ... | 1·83 | 1·00 | 9·23 | 2·68 | 8·63 | 1·03 | 3·38 | ... | 34·83 |
| 1872 | ... | ... | ... | ... | 1·00 | 6·63 | 6·65 | 6·00 | 6·95 | 13·05 | 6·80 | 0·28 | 47·36 |
| 1873 | ... | ... | ... | 0·40 | ... | 2·55 | 1·98 | 4·18 | 1·68 | 11·92 | 3·52 | ... | 26·23 |
| 1874 | ... | ... | ... | ... | 1·89 | 7·09 | 5·30 | 4·78 | 5·17 | 14·23 | 2·53 | ... | 40·99 |
| 1875 | 1·60 | ... | 1·17 | ... | 0·18 | 0·77 | 5·68 | 8·41 | 9·35 | 12·62 | 0·15 | 0·30 | 40·23 |
| 1876 | ... | ... | ... | ... | 0·85 | 3·13 | 4·64 | 13·00 | 5·94 | ... | 0·02 | ... | 27·58 |
| 1877 | 0·40 | 0·08 | 0·83 | ... | 1·58 | 2·56 | 5·88 | 3·06 | 8·67 | 7·99 | 1·77 | 0·09 | 32·91 |
| 1878 | ... | ... | ... | ... | 2·00 | 6·98 | 16·19 | 10·60 | 9·52 | 22·28 | 1·60 | 0·26 | 69·43 |
| 1879 | 0·02 | ... | ... | ... | 9·51 | 7·36 | 1·00 | 11·03 | 2·61 | 5·87 | 6·27 | ... | 43·67 |
| 1880 | ... | 0·18 | ... | 0·51 | 1·30 | 3·04 | 3·84 | 4·39 | 2·82 | 3·16 | 14·83 | 1·84 | 35·91 |
| 1881 | ... | ... | ... | ... | 0·84 | 7·69 | 2·21 | 7·78 | 7·71 | 0·73 | 7·07 | 0·66 | 34·69 |
| 1882 | 0·01 | ... | ... | ... | 1·63 | 3·92 | 3·39 | 5·30 | 10·52 | 6·70 | 12·76 | 4·10 | 48·33 |
| 1883 | 0·58 | ... | ... | 0·01 | 0·27 | 5·53 | 3·43 | 1·62 | 3·27 | 13·35 | 14·85 | 0·22 | 43·13 |
| Mean | 0·25 | 0·08 | 0·34 | 0·05 | 1·75 | 4·12 | 5·53 | 5·65 | 6·64 | 8·58 | 4·11 | 0·48 | 37·58 |
| 1884 | 1·16 | 0·48 | ... | 0·06 | 1·52 | 3·55 | 7·35 | 5·01 | 4·48 | 13·07 | 1·20 | 0·23 | 38·11 |
| 1885 | 0·08 | 0·58 | 0·89 | ... | 1·54 | 8·60 | 5·78 | 1·10 | 6·16 | 5·65 | 6·37 | 3·57 | 49·32 |
| 1886 | ... | ... | 0·29 | ... | 1·67 | 7·54 | 4·70 | 19·93 | 6·31 | 11·78 | 1·65 | 2·63 | 56·50 |
| Mean | 0·27 | 0·12 | 0·35 | 0·05 | 1·73 | 4·43 | 5·58 | 6·03 | 6·52 | 8·78 | 3·98 | 0·68 | 38·52 |

No. 351. GUNTUR.

Latitude N. 16° 18′. Longitude E. 80° 29′. Elevation 400 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1852 | ... | ... | 0·25 | ... | 2·00 | 3·50 | 2·25 | 7·75 | 9·50 | 11·25 | 0·60 | 2·75 | 39·85 |
| 1853 | 1·25 | ... | ... | ... | 0·75 | 0·75 | 4·25 | 7·00 | 1·50 | 2·50 | ... | ... | 18·00 |
| 1854 | ... | 0·50 | ... | ... | ... | 2·50 | 8·00 | 3·25 | 4·75 | 14·25 | 1·50 | ... | 34·75 |
| 1855 to 1862 | Records wanting. | | | | | | | | | | | | |
| 1863 | ... | ... | ... | 6·55 | 0·10 | 3·10 | 5·30 | 0·10 | 3·80 | 5·65 | ... | ... | 24·60 |
| 1864 | ... | ... | ... | ... | 3·70 | ... | 8·10 | 11·00 | 2·40 | 1·80 | 4·00 | ... | 31·00 |
| 1865 | ... | ... | ... | 3·00 | 2·50 | 1·00 | 1·70 | 17·85 | 4·10 | 2·35 | 1·10 | ... | 33·60 |
| 1866 | ... | 0·60 | ... | ... | ... | 2·02 | 0·48 | 3·39 | 3·30 | 19·70 | 0·03 | 0·01 | 29·53 |
| 1867 | 0·08 | ... | ... | 2·00 | 0·20 | 4·40 | 1·90 | 13·80 | 20·00 | 10·80 | ... | 0·30 | 53·48 |
| 1868 | ... | ... | ... | ... | 3·30 | 6·85 | 10·35 | 2·70 | 7·70 | 0·40 | 0·45 | ... | 31·75 |
| 1869 | ... | ... | 2·10 | ... | ... | 6·80 | 2·85 | 4·30 | 2·45 | 7·25 | 0·30 | 1·05 | 27·10 |
| 1870 | 3·23 | ... | ... | 0·70 | 0·75 | 3·10 | 6·35 | 3·75 | 10·95 | 6·45 | ... | ... | 35·28 |
| 1871 | 1·00 | 0·80 | 1·50 | 0·70 | 1·95 | 1·95 | 6·55 | 5·40 | 5·23 | 4·65 | 1·30 | ... | 31·03 |
| 1872 | ... | ... | ... | ... | 0·95 | 3·35 | 5·25 | 3·82 | 7·45 | 13·08 | 3·50 | 1·45 | 38·85 |
| 1873 | ... | ... | ... | ... | 0·67 | 3·03 | 3·75 | 3·72 | 5·22 | 13·35 | 0·71 | ... | 30·45 |
| 1874 | ... | ... | ... | ... | 3·46 | 7·14 | 4·92 | 2·95 | 5·47 | 6·50 | 2·45 | ... | 32·89 |
| 1875 | 2·50 | ... | 0·80 | 0·05 | 1·50 | 1·10 | 5·84 | 9·40 | 3·23 | 7·92 | ... | 0·15 | 32·49 |
| 1876 | ... | ... | ... | ... | 2·55 | 3·67 | 3·63 | 6·22 | 2·40 | 0·30 | ... | ... | 18·77 |
| 1877 | 1·10 | 1·70 | 6·50 | ... | 5·70 | 1·30 | 3·05 | 4·15 | 6·39 | 7·12 | 0·70 | 0·05 | 37·76 |
| 1878 | ... | ... | ... | 1·10 | 4·55 | 2·30 | 11·80 | 8·25 | 4·10 | 10·73 | 4·50 | 0·15 | 47·48 |
| 1879 | ... | ... | 0·85 | ... | 4·48 | 8·80 | 4·20 | 11·50 | 3·00 | 3·35 | 7·75 | ... | 43·93 |
| 1880 | ... | 0·15 | ... | ... | 1·76 | 4·55 | 0·80 | 6·50 | 5·90 | 2·85 | 9·05 | ... | 31·56 |
| 1881 | ... | ... | 0·20 | 1·00 | 0·70 | 5·25 | 1·35 | 5·90 | 6·85 | 0·70 | 2·15 | ... | 24·10 |
| 1882 | ... | ... | ... | 0·40 | 0·85 | 2·55 | 5·30 | 3·70 | 8·95 | 5·10 | 13·85 | ... | 40·70 |
| 1883 | ... | ... | ... | 0·45 | ... | 3·45 | 2·32 | 6·70 | 4·75 | 7·90 | 3·15 | ... | 28·72 |
| Mean | 0·38 | 0·16 | 0·51 | 0·66 | 1·77 | 3·44 | 4·60 | 6·38 | 5·81 | 6·91 | 2·38 | 0·25 | 33·25 |
| 1884 | 0·40 | ... | 0·10 | ... | 3·45 | 2·50 | 9·05 | 4·35 | 7·40 | 4·21 | 0·45 | 0·40 | 32·31 |
| 1885 | ... | ... | 1·65 | ... | 3·95 | 3·10 | 4·70 | 2·80 | 6·85 | 4·25 | 2·75 | 4·75 | 34·80 |
| 1886 | ... | ... | 0·75 | ... | 1·70 | 7·60 | 6·65 | 11·88 | 3·00 | 6·50 | 0·88 | 3·53 | 42·49 |
| Mean | 0·35 | 0·14 | 0·54 | 0·59 | 1·91 | 3·54 | 4·84 | 6·38 | 5·80 | 6·70 | 2·27 | 0·54 | 33·60 |

No. 352. VINUKONDA.

Latitude N. 16° 4′. Longitude E. 79° 47′. Elevation 700 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 3·60 | ... | ... | ... | 1·00 | 1·00 | 2·75 | 1·90 | 6·00 | 6·00 | 2·20 | ... | 24·45 |
| 1871 | ... | ... | ... | ... | 0·60 | 0·50 | 3·30 | 6·75 | 3·20 | 2·15 | 3·53 | ... | 20·03 |
| 1872 | ... | ... | ... | ... | ... | 3·05 | 2·90 | 5·68 | 7·80 | 6·45 | 1·10 | 1·85 | 28·83 |

VINUKONDA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1873 | ... | ... | ... | 1·00 | ... | 1·55 | 0·40 | 2·20 | 2·75 | 15·12 | 0·05 | ... | 23·07 |
| 1874 | ... | ... | ... | ... | 2·25 | 9·45 | 4·15 | 1·75 | 7·10 | 9·60 | 0·25 | ... | 34·55 |
| 1875 | 0·35 | ... | ... | 0·40 | 1·10 | 0·92 | 3·00 | 3·35 | 10·10 | 9·40 | 1·35 | 0·05 | 30·02 |
| 1876 | ... | ... | 0·20 | ... | ... | 3·30 | 0·73 | 3·03 | ... | 0·30 | 2·40 | ... | 9·96 |
| 1877 | 1·15 | 0·25 | 0·93 | 1·93 | 5·53 | 1·32 | 1·40 | 0·98 | 8·60 | 5·77 | 1·42 | 0·10 | 29·38 |
| 1878 | ... | ... | ... | ... | 2·00 | 1·93 | 6·73 | 6·43 | 2·07 | 9·53 | 1·33 | 0·75 | 30·77 |
| 1879 | ... | ... | ... | ... | 3·95 | 1·17 | 5·08 | 6·18 | 1·23 | 4·32 | 4·50 | ... | 26·43 |
| 1880 | ... | ... | ... | 1·50 | 0·90 | 1·37 | ... | 3·22 | 2·05 | 5·22 | 2·20 | 0·80 | 17·26 |
| 1881 | ... | ... | ... | 1·75 | 0·85 | 4·87 | 0·70 | 7·92 | 5·90 | 1·47 | 4·58 | ... | 28·04 |
| 1882 | ... | ... | ... | ... | 1·07 | 1·44 | 1·30 | 4·20 | 3·13 | 1·18 | 10·60 | 7·40 | 30·32 |
| 1883 | ... | ... | ... | ... | 0·90 | 2·75 | 2·47 | 5·18 | 2·27 | 10·85 | 2·60 | ... | 27·02 |
| Mean | 0·36 | 0·02 | 0·08 | 0·47 | 1·44 | 2·47 | 2·49 | 4·20 | 4·44 | 6·24 | 2·72 | 0·78 | 25·71 |
| 1884 | 0·30 | ... | 0·75 | 0·15 | 1·54 | 2·50 | 2·68 | 1·37 | 4·87 | 7·66 | 3·10 | 0·50 | 25·42 |
| 1885 | ... | ... | 0·65 | ... | ... | 2·63 | 3·73 | 1·78 | 4·76 | 2·85 | 5·60 | 2·80 | 24·80 |
| 1886 | ... | ... | 1·85 | ... | 5·60 | 3·60 | 3·58 | 8·63 | 4·40 | 13·35 | 6·62 | 0·76 | 48·39 |
| Mean | 0·32 | 0·01 | 0·26 | 0·40 | 2·61 | 2·55 | 2·64 | 4·15 | 4·48 | 6·54 | 3·14 | 0·88 | 26·98 |

No. 353. ONGOLE.

Latitude N. 15° 30′. Longitude E. 80° 6′. Elevation 200 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 3·80 | ... | ... | ... | ... | 2·20 | 3·60 | 4·90 | 7·80 | 15·20 | 3·40 | ... | 40·90 |
| 1871 | ... | ... | ... | ... | ... | ... | 3·30 | 3·80 | 5·80 | 1·30 | 10·75 | ... | 24·95 |
| 1872 | ... | ... | ... | ... | 2·25 | ... | 3·70 | 5·55 | 4·80 | 4·35 | 4·90 | 3·00 | 28·55 |
| 1873 | ... | ... | ... | ... | ... | 2·75 | 1·40 | 2·60 | 2·60 | 12·20 | 4·10 | ... | 25·65 |
| 1874 | ... | 0·15 | 0·05 | ... | 4·45 | 2·95 | 5·90 | 1·15 | 14·30 | 15·65 | 0·95 | 1·10 | 46·65 |
| 1875 | 0·85 | ... | ... | 0·30 | 1·50 | 0·60 | 4·00 | 2·90 | 5·70 | 8·10 | 0·40 | 2·05 | 26·40 |
| 1876 | ... | ... | ... | ... | 1·40 | 3·40 | 1·70 | 6·30 | 2·35 | 1·60 | 0·55 | ... | 17·30 |
| 1877 | ... | 0·40 | 2·40 | ... | 6·60 | 0·30 | 1·50 | 0·30 | 9·95 | 8·60 | ... | 1·40 | 31·45 |
| 1878 | ... | ... | ... | 0·60 | 2·30 | 1·00 | 8·10 | 7·75 | 5·85 | 13·75 | 2·30 | 0·30 | 41·95 |
| 1879 | ... | ... | ... | ... | 3·90 | 1·40 | 1·71 | 3·80 | 3·70 | 10·10 | 15·40 | ... | 40·01 |
| 1880 | ... | ... | ... | ... | 1·05 | 1·70 | 0·50 | 1·10 | 1·30 | 5·75 | 13·40 | 1·35 | 26·15 |
| 1881 | 0·45 | ... | ... | ... | 1·00 | 2·55 | 0·15 | 4·20 | 6·45 | ... | 11·90 | ... | 26·70 |
| 1882 | 0·20 | ... | ... | ... | 1·05 | 1·65 | 3·65 | 4·10 | 2·30 | 3·90 | 19·60 | 5·55 | 42·00 |
| 1883 | ... | ... | 0·30 | 1·80 | 0·30 | 4·65 | 2·50 | 6·80 | 0·75 | 19·80 | 7·25 | ... | 44·15 |
| Mean | 0·38 | 0·04 | 0·20 | 0·19 | 1·84 | 1·80 | 2·98 | 3·95 | 5·26 | 8·59 | 6·78 | 1·05 | 33·06 |
| 1884 | ... | ... | ... | 0·40 | ... | 1·85 | 1·45 | 3·15 | 5·10 | 18·30 | 3·60 | 2·35 | 36·20 |
| 1885 | ... | ... | 0·90 | ... | 0·50 | 2·45 | 3·35 | 1·25 | 4·80 | 4·50 | 2·50 | 3·45 | 23·70 |
| 1886 | ... | ... | 0·70 | ... | 2·50 | 3·25 | 5·95 | 8·05 | 4·30 | 21·05 | 3·95 | 1·60 | 51·35 |
| Mean | 0·31 | 0·03 | 0·26 | 0·18 | 1·69 | 1·92 | 3·09 | 3·98 | 5·17 | 9·66 | 6·17 | 1·30 | 33·76 |

No. 354. CUMBUM.

Latitude N. 15° 34′. Longitude E. 79° 9′. Elevation 1,750 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 1·20 | ... | ... | ... | 1·00 | 1·25 | 3·55 | 2·39 | 4·81 | 5·55 | 3·02 | ... | 22·77 |
| 1871 | 0·53 | ... | ... | ... | 1·00 | 1·23 | 5·34 | 1·00 | 4·90 | 1·60 | 5·40 | ... | 21·00 |
| 1872 | ... | ... | ... | 0·35 | 1·70 | 1·55 | 4·00 | 4·36 | 2·93 | 7·70 | 3·10 | 3·20 | 28·89 |
| 1873 | ... | ... | ... | ... | 2·30 | 3·17 | 1·29 | 2·40 | 4·38 | 12·81 | 0·81 | ... | 27·16 |
| 1874 | ... | ... | ... | 1·35 | 6·70 | 2·37 | 4·41 | 0·21 | 12·48 | 6·29 | 0·30 | 0·26 | 34·37 |
| 1875 | ... | ... | 0·75 | ... | 1·43 | 1·77 | 4·83 | 1·38 | 0·77 | 7·15 | ... | ... | 18·08 |
| 1876 | ... | ... | 0·85 | 0·84 | ... | 0·67 | 0·10 | 0·96 | 3·50 | 0·28 | ... | ... | 7·20 |
| 1877 | ... | ... | 2·53 | 0·20 | 4·50 | ... | 0·85 | ... | 6·40 | 5·25 | 0·80 | 0·65 | 21·18 |
| 1878 | ... | ... | 3·05 | ... | 1·96 | 1·13 | 8·07 | 11·35 | 2·82 | 3·27 | 1·47 | ... | 33·12 |
| 1879 | ... | 0·90 | ... | ... | 1·90 | 3·20 | 1·55 | 6·45 | 2·45 | 3·95 | 1·79 | ... | 22·19 |
| 1880 | ... | ... | ... | ... | 2·31 | 2·75 | 1·59 | 3·80 | 4·05 | 8·20 | 7·02 | 0·15 | 29·87 |
| 1881 | ... | ... | ... | 0·20 | 3·53 | 7·68 | ... | 2·06 | 3·30 | 0·70 | 3·34 | ... | 20·81 |
| 1882 | ... | ... | ... | ... | 0·60 | 2·50 | 2·85 | 1·57 | 3·11 | 3·52 | 16·88 | ... | 31·03 |
| 1883 | ... | ... | 0·70 | ... | ... | 3·31 | 3·65 | 3·62 | 2·29 | 11·83 | 3·33 | 0·67 | 29·40 |
| Mean | 0·12 | 0·06 | 0·56 | 0·21 | 2·07 | 2·33 | 3·01 | 2·97 | 4·16 | 5·58 | 3·38 | 0·35 | 24·80 |
| 1884 | 0·20 | ... | ... | ... | 0·39 | 0·93 | 2·21 | 1·49 | 3·15 | 7·65 | 3·66 | 0·68 | 20·36 |
| 1885 | ... | ... | 0·07 | ... | 3·61 | 0·87 | 2·94 | 1·86 | 1·58 | 2·32 | 10·41 | 6·83 | 30·49 |
| 1886 | ... | ... | 0·14 | ... | 1·50 | 3·43 | 3·01 | 2·84 | 0·73 | 15·12 | 1·97 | 0·50 | 29·24 |
| Mean | 0·11 | 0·05 | 0·48 | 0·17 | 2·03 | 2·22 | 2·96 | 2·81 | 3·74 | 6·07 | 3·72 | 0·76 | 25·12 |

No. 355. UDAYAGIRI.

Latitude N. 14° 52′. Longitude E. 79° 19′. Elevation 1,250 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 3·65 | ... | 0·06 | ... | 0·20 | 0·16 | 0·12 | 1·06 | 1·95 | 9·80 | 0·85 | ... | 17·85 |
| 1871 | 0·20 | ... | ... | ... | ... | 0·70 | 2·20 | 1·10 | 1·30 | 1·10 | 12·30 | ... | 18·90 |
| 1872 | ... | ... | ... | ... | 4·50 | 0·80 | 0·45 | 0·45 | 1·05 | 8·43 | 12·00 | 7·35 | 35·03 |
| 1873 | ... | 2·10 | ... | ... | ... | ... | ... | 3·20 | 1·85 | 15·50 | 3·60 | 0·30 | 26·55 |
| 1874 | ... | ... | ... | ... | 4·95 | 1·10 | 7·35 | 1·10 | 5·80 | 11·05 | 1·35 | 3·05 | 35·75 |
| 1875 | 0·10 | ... | 0·85 | 1·00 | 1·40 | 2·00 | 2·30 | 2·35 | 3·40 | 6·15 | 0·15 | 3·10 | 22·80 |
| 1876 | ... | ... | 2·05 | 0·30 | 0·50 | 4·95 | 0·85 | 2·10 | 0·30 | 0·15 | 2·80 | ... | 14·00 |
| 1877 | 0·20 | 0·25 | 1·95 | 1·10 | 5·30 | 4·10 | ... | 1·45 | 4·30 | 9·90 | 0·25 | 0·95 | 29·75 |
| 1878 | ... | ... | ... | 0·50 | 0·50 | 0·90 | 4·15 | 6·60 | 5·85 | 4·20 | 3·10 | 2·10 | 27·90 |
| 1879 | 0·65 | 1·30 | ... | ... | 3·55 | 0·60 | 2·60 | 2·00 | 1·90 | 10·20 | 3·20 | 0·20 | 26·20 |
| 1880 | ... | ... | ... | 1·40 | 0·80 | 1·00 | ... | 3·10 | 3·15 | 11·30 | 18·80 | 2·20 | 41·75 |
| 1881 | 0·02 | ... | 0·05 | 0·25 | 4·35 | 1·10 | 0·30 | 1·75 | 1·85 | 3·95 | 11·85 | ... | 25·47 |
| 1882 | 1·20 | ... | ... | ... | 1·50 | 2·20 | ... | 1·15 | 0·85 | 5·00 | 25·85 | 2·70 | 40·45 |
| 1883 | ... | ... | ... | 1·00 | ... | 1·00 | 2·15 | 2·30 | 2·75 | 18·60 | 5·70 | 2·50 | 36·00 |
| Mean | 0·43 | 0·26 | 0·35 | 0·40 | 1·97 | 1·47 | 1·61 | 2·12 | 2·59 | 8·24 | 7·27 | 1·75 | 28·46 |

UDAYAGIRI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 1·50 | ... | ... | ... | 0·20 | 1·45 | 1·55 | 1·67 | 1·92 | 19·45 | 14·65 | 6·75 | 49·14 |
| 1885 | ... | ... | 0·50 | ... | 0·70 | 1·25 | 2·30 | 0·85 | 3·35 | 2·90 | 8·00 | 8·75 | 28·60 |
| 1886 | ... | ... | ... | ... | 3·65 | ... | 1·90 | 1·40 | 0·90 | 12·85 | 1·60 | 1·90 | 24·20 |
| Mean | 0·44 | 0·21 | 0·32 | 0·33 | 1·89 | 1·37 | 1·66 | 1·98 | 2·50 | 8·85 | 7·41 | 2·46 | 29·42 |

No. 356. NELLORE.

Latitude N. 14° 27′. Longitude E. 80° 1′. Elevation 20 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ? | ? | ? | 1·25 | ... | ... | 1·00 | 2·54 | 0·97 | 13·26 | 2·15 | 10·46 | 31·63? |
| 1864 | ... | ... | ... | ... | 2·46 | 1·52 | 2·16 | 3·89 | 2·29 | 8·18 | 12·17 | 1·54 | 34·21 |
| 1865 | ... | ... | ... | ... | 0·45 | 0·45 | 0·50 | 3·89 | 0·85 | 2·53 | 8·88 | 2·60 | 20·15 |
| 1866 | ... | ... | ... | ... | ... | 0·17 | 2·17 | 3·71 | 2·82 | 3·70 | 7·01 | 15·08 | 34·66 |
| 1867 | 0·94 | ... | ... | ... | ... | 1·19 | 0·18 | 3·78 | 0·41 | 10·88 | 3·71 | 2·20 | 23·29 |
| 1868 | 1·25 | ... | ... | ... | ... | 8·74 | 1·43 | 2·28 | 1·29 | 5·96 | 7·62 | ... | 28·57 |
| 1869 | ... | ... | ... | ... | ... | 1·86 | 1·30 | 2·35 | 3·72 | 4·07 | 9·66 | 2·67 | 25·63 |
| 1870 | 4·35 | 0·05 | ... | ... | ... | 1·49 | 2·83 | 3·45 | 1·25 | 18·45 | 1·90 | ... | 43·77 |
| 1871 | 1·35 | ... | 2·10 | 0·20 | 1·50 | 0·40 | 4·85 | 3·60 | 2·90 | 3·20 | 22·05 | 1·25 | 43·40 |
| 1872 | ... | ... | ... | 0·25 | 1·95 | 0·40 | 5·15 | 7·23 | 0·83 | 19·03 | 12·48 | 4·40 | 51·72 |
| 1873 | ... | 1·50 | ... | ... | 0·18 | 0·70 | 0·43 | 3·15 | 2·08 | 20·45 | 9·33 | 2·25 | 40·07 |
| 1874 | ... | ... | ... | ... | 3·58 | 3·45 | 4·80 | 0·78 | 6·80 | 13·23 | 5·55 | 2·76 | 40·95 |
| 1875 | ... | 0·55 | 0·45 | ... | ... | 0·15 | 2·25 | 3·90 | 5·10 | 7·25 | 3·15 | 4·42 | 27·22 |
| 1876 | ... | ... | ... | ... | 1·50 | 0·57 | 2·32 | 5·75 | 0·07 | ... | 3·30 | ... | 13·51 |
| 1877 | 0·10 | 0·10 | 2·67 | ... | 8·70 | 2·35 | 0·30 | 0·55 | 5·72 | 13·20 | 4·15 | 4·52 | 42·36 |
| 1878 | ... | ... | ... | 0·80 | 0·70 | 0·30 | 6·58 | 2·63 | 6·43 | 2·58 | 3·18 | 5·40 | 28·60 |
| 1879 | 0·95 | ... | ... | ... | 4·60 | 4·50 | 3·20 | 2·40 | 0·52 | 11·15 | 12·80 | 0·05 | 40·17 |
| 1880 | ... | ... | ... | ... | 0·30 | 1·72 | 0·35 | 4·72 | 2·15 | 8·60 | 30·53 | 5·12 | 53·49 |
| 1881 | ... | ... | 0·35 | 0·30 | 1·10 | 1·50 | 1·70 | 3·85 | 5·90 | 0·75 | 17·00 | 3·30 | 35·75 |
| 1882 | 1·75 | ... | ... | ... | 1·05 | 0·50 | 2·30 | 0·80 | 3·20 | 15·85 | 30·95 | 0·95 | 57·35 |
| 1883 | ... | ... | ... | ... | 0·20 | 1·25 | 1·20 | 1·35 | 1·12 | 24·40 | 5·90 | 2·65 | 38·07 |
| Mean | 0·53 | 0·11 | 0·28 | 0·13 | 1·35 | 1·58 | 2·24 | 3·17 | 3·16 | 9·84 | 10·17 | 3·41 | 35·97 |
| 1884 | 0·05 | ... | ... | ... | 0·65 | 0·60 | 0·37 | 2·15 | 4·35 | 12·75 | 28·25 | 8·15 | 57·32 |
| 1885 | ... | ... | ... | ... | 0·15 | 1·90 | 2·05 | 0·85 | 1·90 | 2·45 | 20·10 | 9·00 | 38·40 |
| 1886 | ... | ... | ... | ... | 4·30 | 0·70 | 2·80 | 5·00 | 3·60 | 15·45 | 4·95 | 1·95 | 38·75 |
| Mean | 0·47 | 0·10 | 0·24 | 0·12 | 1·39 | 1·52 | 2·18 | 3·11 | 3·18 | 9·89 | 11·12 | 3·78 | 37·10 |

No. 357. KURNOOL.

Latitude N. 15° 50′. Longitude E. 78° 6′. Elevation 900 feet.

Administration: MADRAS. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1852 | ... | ... | 0·25 | 0·45 | 4·65 | 2·15 | 3·80 | 6·20 | 4·90 | 2·80 | ... | ... | 25·20 |
| 1853 | 0·60 | ... | 3·05 | 0·35 | 2·20 | 1·20 | 1·25 | 5·30 | 0·50 | 2·00 | ... | ... | 16·45 |
| 1854 | ... | ... | ... | 0·55 | 0·30 | 2·00 | 13·25 | 6·00 | 12·50 | 8·75 | ... | ... | 43·35 |
| 1855 to 1862 | Records wanting. | | | | | | | | | | | | |
| 1863 | P | P | P | 5·00 | 1·40 | 2·70 | 5·55 | 5·60 | 5·89 | 6·70 | 1·10 | ... | 33·94 P |
| 1864 | ... | ... | ... | ... | 5·30 | 7·03 | 8·84 | 5·60 | 8·60 | ... | 2·10 | ... | 37·47 |
| 1865 | ... | 0·80 | ... | 1·71 | 4·00 | 6·20 | 4·50 | 14·00 | 6·20 | 0·05 | 3·20 | ... | 40·66 |
| 1866 | ... | ... | ... | 0·60 | 4·07 | 0·43 | 4·60 | 5·30 | 12·76 | 13·40 | 0·20 | 0·10 | 41·46 |
| 1867 | ... | ... | 1·30 | 0·90 | 2·00 | 3·90 | 3·51 | 6·42 | 6·58 | 9·70 | ... | ... | 34·31 |
| 1868 | ... | ... | ... | 2·40 | ... | 7·70 | 7·08 | 7·46 | 6·30 | 0·30 | ... | ... | 31·24 |
| 1869 | ... | ... | 0·88 | 0·13 | 1·43 | 3·71 | 1·38 | 4·54 | 2·89 | 2·97 | 0·93 | 0·24 | 19·10 |
| 1870 | 0·27 | ... | ... | ... | 0·80 | 3·58 | 4·68 | 15·42 | 8·24 | 3·13 | 0·26 | ... | 36·38 |
| 1871 | ... | ... | 1·12 | ... | 2·65 | 1·51 | 7·50 | 4·28 | 5·74 | 0·12 | 0·05 | ... | 22·97 |
| 1872 | ... | ... | ... | 0·76 | 0·85 | 5·46 | 4·92 | 3·41 | 8·76 | 0·74 | 2·15 | 2·13 | 29·18 |
| 1873 | ... | ... | ... | ... | 2·98 | 2·97 | 1·77 | 4·67 | 3·43 | 3·31 | 0·20 | ... | 19·33 |
| 1874 | ... | ... | ... | 0·05 | 4·85 | 4·70 | 12·16 | 2·98 | 17·05 | 7·46 | 0·63 | 0·63 | 50·51 |
| 1875 | ... | ... | 0·32 | ... | 2·80 | 2·15 | 9·18 | 3·33 | 4·60 | 2·80 | ... | ... | 25·18 |
| 1876 | ... | ... | 0·15 | 1·25 | 0·04 | 3·73 | 1·26 | 1·50 | 0·11 | ... | 0·55 | ... | 8·59 |
| 1877 | ... | ... | 1·07 | 0·08 | 3·32 | 2·05 | 0·87 | 2·34 | 7·80 | 4·31 | 0·56 | ... | 22·40 |
| 1878 | ... | ... | ... | 1·30 | 0·22 | 2·96 | 10·67 | 13·10 | 9·20 | 9·69 | 1·00 | 0·03 | 48·17 |
| 1879 | ... | 0·20 | ... | ... | 3·85 | 1·75 | 2·65 | 7·20 | 1·77 | 2·05 | 0·30 | ... | 19·77 |
| 1880 | ... | ... | ... | 1·20 | 1·57 | 3·75 | 1·85 | 6·21 | 2·67 | 2·05 | 0·94 | 0·03 | 20·27 |
| 1881 | ... | ... | 1·95 | 0·43 | 0·40 | 2·12 | 1·43 | 7·26 | 3·94 | 0·95 | 1·49 | ... | 19·97 |
| 1882 | 0·14 | ... | ... | 0·60 | 0·44 | 0·43 | 2·99 | 2·45 | 6·57 | 2·22 | 2·40 | 0·95 | 19·19 |
| 1883 | ... | ... | 1·32 | 0·40 | 0·20 | 4·64 | 5·10 | 8·48 | 4·35 | 5·51 | 0·92 | ... | 30·92 |
| Mean | 0·04 | 0·04 | 0·50 | 0·76 | 2·10 | 3·28 | 5·03 | 6·21 | 6·31 | 3·79 | 0·79 | 0·17 | 29·02 |
| 1884 | 0·33 | ... | ... | ... | 0·40 | 0·66 | 2·27 | 2·38 | 4·35 | 2·64 | 0·42 | 0·10 | 13·55 |
| 1885 | ... | ... | 0·16 | 0·09 | 0·80 | 4·24 | 6·35 | 5·34 | 4·13 | 7·63 | 1·84 | 1·11 | 31·69 |
| 1886 | ... | ... | 0·41 | 0·01 | 1·74 | 5·80 | 7·50 | 7·10 | 3·06 | 10·55 | 0·42 | 0·27 | 36·86 |
| Mean | 0·05 | 0·04 | 0·46 | 0·68 | 1·97 | 3·32 | 5·07 | 6·07 | 6·03 | 4·14 | 0·80 | 0·22 | 28·84 |

No. 358. ADONI.

Latitude N. 15° 38′. Longitude E. 77° 19′. Elevation 1,361 feet.

Administration: MADRAS. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ... | ... | ... | ... | 0·18 | 6·04 | 5·17 | 11·50 | 3·17 | 6·82 | 0·20 | ... | 33·08 |
| 1871 | ... | ... | ... | 0·42 | 2·99 | 5·50 | 4·35 | 2·67 | 3·75 | 0·60 | 0·90 | ... | 21·18 |

ADONI—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | ... | ... | ... | 0·90 | 1·03 | 5·46 | 4·15 | 2·20 | 9·72 | 5·30 | ... | 0·55 | 29·31 |
| 1873 | ... | ... | ... | 0·52 | 0·75 | 0·65 | 1·90 | 4·70 | 2·58 | 5·67 | ... | ... | 16·77 |
| 1874 | ... | ... | ... | ... | 5·00 | 5·45 | 9·50 | 3·72 | 12·67 | 8·20 | ... | ... | 44·54 |
| 1875 | ... | ... | ... | 0·35 | 0·87 | 5·17 | 5·47 | 8·01 | 5·90 | 7·96 | ... | ... | 33·73 |
| 1876 | ... | ... | ... | ... | ... | 5·27 | 1·79 | 2·95 | 1·14 | 0·10 | ... | ... | 11·25 |
| 1877 | ... | ... | ... | 0·50 | 1·62 | 1·87 | 2·60 | 2·97 | 7·02 | 7·29 | 1·50 | ... | 25·37 |
| 1878 | ... | ... | ... | 0·59 | 2·71 | 3·55 | 7·70 | 12·60 | 7·75 | 6·67 | 0·80 | ... | 42·37 |
| 1879 | ... | ... | ... | 1·00 | 2·20 | 4·02 | 4·17 | 6·30 | 2·82 | 1·15 | 1·15 | ... | 22·81 |
| 1880 | ... | ... | ... | 1·37 | 3·30 | 6·78 | 5·10 | 3·95 | 5·80 | 10·10 | 1·05 | ... | 37·45 |
| 1881 | ... | ... | 0·15 | 0·30 | 0·57 | 3·67 | 0·30 | 3·25 | 8·60 | 3·60 | ... | ... | 20·44 |
| 1882 | ... | ... | 0·15 | ... | 0·78 | 1·07 | 4·30 | 8·28 | 7·69 | 0·67 | 2·78 | ... | 26·22 |
| 1883 | ... | ... | 0·23 | 1·00 | 0·12 | 1·90 | 3·48 | 7·08 | 2·15 | 5·05 | 0·72 | ... | 21·73 |
| Mean | ... | ... | 0·04 | 0·50 | 1·58 | 4·03 | 4·32 | 5·73 | 5·77 | 4·94 | 0·65 | 0·04 | 27·60 |
| 1884 | 1·15 | ... | 0·10 | 1·80 | 0·28 | 1·30 | 1·48 | 4·53 | 3·00 | 2·70 | 0·01 | 0·13 | 16·48 |
| 1885 | ... | ... | ... | 0·13 | 3·91 | 3·05 | 4·75 | 2·73 | 6·83 | 4·13 | 0·70 | 0·23 | 26·46 |
| 1886 | ... | ... | ... | 0·05 | 2·11 | 6·88 | 4·00 | 7·18 | 1·63 | 10·70 | 0·83 | 0·30 | 33·68 |
| Mean | 0·07 | ... | 0·04 | 0·53 | 1·67 | 3·98 | 4·16 | 5·57 | 5·42 | 5·10 | 0·63 | 0·07 | 27·24 |

No. 859. BELLARY.

Latitude N. 15° 9′. Longitude E. 76° 57′. Elevation 1,455 feet.

Administration: MADRAS. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1847 | ... | 0·02 | 0·03 | 4·19 | 0·09 | 4·40 | 1·17 | 6·10 | 4·61 | 5·38 | 0·39 | 0·02 | 26·40 |
| 1848 | ... | ... | ... | 0·02 | 1·81 | 2·75 | 0·60 | 1·74 | 8·45 | 2·21 | 0·03 | ... | 17·61 |
| 1849 to 1851 | Records wanting. | | | | | | | | | | | | |
| 1852 | ... | ... | ... | 1·00 | 3·75 | 0·95 | 3·95 | 1·75 | 10·85 | 7·45 | 0·45 | 4·95 | 35·10 |
| 1853 | 2·00 | ... | 7·60 | 1·00 | 3·35 | 1·00 | 0·45 | 2·70 | 1·50 | 0·80 | 1·00 | ... | 21·40 |
| 1854 | ... | ... | ... | ... | 1·55 | ... | 0·70 | 0·50 | 1·60 | 9·94 | 0·23 | ... | 14·52 |
| 1855 to 1858 | Records wanting. | | | | | | | | | | | | |
| 1859 | ... | ... | 0·20 | 0·50 | 0·20 | 0·20 | 2·20 | 3·10 | 0·60 | ... | 1·30 | ... | 8·30 |
| 1860 | ... | ... | 0·20 | 0·70 | ... | 5·60 | 0·20 | 0·70 | 2·60 | 0·20 | ... | ... | 10·20 |
| 1861 | ... | ... | ... | ... | 2·90 | 0·60 | 0·80 | 2·50 | 3·80 | 1·50 | ... | ... | 12·10 |
| 1862 | ... | ... | 0·80 | 0·20 | ... | 4·50 | ... | 0·50 | 4·40 | 5·40 | 1·50 | ... | 17·30 |
| 1863 | ... | ... | 2·30 | 0·70 | 1·30 | ... | 0·70 | 0·90 | 1·10 | 2·80 | ... | ... | 9·80 |
| 1864 | ... | ... | ... | 1·00 | 3·20 | 2·10 | ... | 6·20 | 1·10 | 0·90 | 1·40 | ... | 15·90 |
| 1865 | ... | 0·90 | ... | 3·00 | 2·80 | 0·90 | 1·40 | 2·00 | 0·90 | ... | 0·40 | ... | 12·30 |
| 1866 | ... | ... | ... | ... | 2·40 | ... | ... | ... | 2·50 | 8·20 | 0·10 | 0·50 | 13·70 |
| 1867 | ... | ... | 1·50 | 0·40 | 2·90 | 0·80 | 0·40 | ... | 4·90 | 2·95 | ... | ... | 13·85 |

BELLARY—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | 0·12 | ... | 1·75 | 1·03 | 0·35 | 2·52 | 3·71 | 3·92 | 6·42 | 2·24 | 0·50 | ... | 22·56 |
| 1869 | ... | ... | ... | 0·60 | 2·45 | 0·42 | 1·00 | 6·15 | 2·00 | 1·97 | ... | 0·10 | 14·69 |
| 1870 | ... | ... | ... | ... | 1·30 | 4·35 | 0·47 | 2·90 | 1·95 | 3·40 | 0·60 | ... | 14·97 |
| 1871 | 0·55 | ... | ... | 0·20 | 3·20 | 2·55 | 0·35 | 1·20 | 3·97 | 2·00 | 2·15 | ... | 16·17 |
| 1872 | ... | ... | ... | 0·60 | 0·60 | 2·61 | 1·19 | 0·45 | 5·72 | 5·42 | 0·87 | 0·60 | 18·06 |
| 1873 | ... | ... | ... | 1·35 | 2·32 | ... | ... | 2·97 | 2·57 | 9·85 | 0·77 | ... | 19·83 |
| 1874 | ... | ... | ... | 0·10 | 5·60 | 2·45 | 3·75 | 0·65 | 5·22 | 7·12 | ... | ... | 24·89 |
| 1875 | ... | ... | 0·30 | ... | 1·97 | 3·51 | 1·85 | 1·77 | 4·20 | 3·92 | ... | ... | 17·52 |
| 1876 | ... | ... | 1·40 | 0·68 | 0·70 | 1·89 | ... | 0·91 | 1·65 | ... | ... | ... | 7·23 |
| 1877 | ... | ... | ... | 2·50 | 0·35 | 2·12 | 1·46 | 1·97 | 5·31 | 8·95 | 0·52 | 0·80 | 23·98 |
| 1878 | ... | ... | ... | 1·30 | 1·90 | 1·05 | 3·90 | 2·90 | 5·44 | 4·35 | 8·37 | 0·75 | 24·96 |
| 1879 | ... | 0·39 | ... | 0·59 | 3·03 | 1·50 | 7·34 | 2·98 | 3·54 | 3·03 | 0·86 | 0·02 | 23·28 |
| 1880 | ... | ... | ... | 0·59 | 1·18 | 1·47 | 1·50 | 5·22 | 2·86 | 6·10 | 3·39 | 0·06 | 22·37 |
| 1881 | ... | ... | 0·53 | 1·95 | 1·21 | 0·71 | 0·14 | 0·98 | 6·70 | 0·80 | 3·08 | ... | 16·10 |
| 1882 | 0·32 | ... | ... | 0·08 | 2·91 | 0·38 | 0·74 | 2·55 | 5·80 | 0·87 | 6·30 | ... | 19·95 |
| 1883 | ... | ... | 1·38 | 0·27 | 0·56 | 0·07 | 1·40 | 3·88 | 0·55 | 4·92 | 1·06 | ... | 14·09 |
| Mean | 0·10 | 0·04 | 0·60 | 0·82 | 1·86 | 1·71 | 1·38 | 2·34 | 3·76 | 3·76 | 1·01 | 0·26 | 17·64 |
| 1884 | 1·82 | ... | ... | 0·18 | 0·34 | 0·98 | 0·58 | 0·49 | 1·05 | 2·11 | 0·64 | 0·01 | 8·20 |
| 1885 | ... | ... | 0·19 | ... | 2·29 | 3·75 | 1·21 | 1·41 | 7·43 | 12·75 | 0·74 | 0·43 | 30·20 |
| 1886 | ... | ... | ... | 0·04 | 1·00 | 2·99 | 1·19 | 2·33 | 1·37 | 2·83 | 1·00 | 0·24 | 12·99 |
| Mean | 0·15 | 0·04 | 0·55 | 0·75 | 1·80 | 1·79 | 1·34 | 2·25 | 3·72 | 3·95 | 0·99 | 0·26 | 17·59 |

No. 360. GOOTY.

Latitude N. 15° 7′. Longitude E. 77° 42′. Elevation 1,168 feet.

Administration: MADRAS. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1856 | ... | ... | ... | 0·80 | 3·40 | 3·50 | 0·90 | 12·00 | 2·50 | ... | ... | ... | 23·10 |
| 1857 | ... | ... | ... | ... | 2·40 | 3·90 | ... | ... | 0·40 | 2·00 | 2·30 | ... | 11·00 |
| 1858 | ... | ... | ... | 0·20 | 2·50 | 1·30 | ... | 0·10 | 1·60 | 4·50 | 0·70 | ... | 10·90 |
| 1859 | ... | ... | ... | 1·30 | 0·60 | ... | 7·10 | 5·20 | 2·40 | ... | 0·20 | 0·50 | 17·30 |
| 1860 | ... | ... | ... | 1·30 | 0·60 | ... | 1·60 | 2·60 | 3·30 | 0·70 | ... | ... | 10·10 |
| 1861 | ... | ... | ... | ... | 0·30 | 1·30 | 1·30 | 3·90 | 8·80 | 1·00 | 3·20 | ... | 19·80 |
| 1862 | 0·70 | ... | ... | ... | 0·20 | 0·50 | 6·60 | 1·50 | 6·90 | 16·10 | 0·50 | 0·50 | 33·50 |
| 1863 | P | P | 0·70 | 2·00 | 2·20 | ... | 3·00 | 3·20 | 2·30 | 4·00 | ... | ... | 17·40? |
| 1864 | ... | ... | ... | 0·40 | 2·20 | 6·20 | 0·80 | 5·70 | 2·00 | 1·80 | 1·40 | ... | 20·50 |
| 1865 | ... | 1·80 | ... | 0·90 | 1·40 | 2·10 | 5·00 | 2·70 | 0·20 | 0·40 | 0·80 | ... | 15·30 |
| 1866 | ... | ... | ... | 0·30 | ... | 0·60 | 1·00 | 1·20 | 3·40 | 9·50 | 0·20 | 0·40 | 16·60 |
| 1867 | ... | ... | 0·80 | ... | 1·00 | 0·20 | 0·40 | 3·00 | 4·10 | 2·57 | ... | ... | 12·07 |
| 1868 | ... | ... | ... | ... | ... | 4·20 | 7·00 | 3·30 | 7·26 | 0·80 | 0·01 | ... | 22·57 |
| 1869 | ... | ... | ... | ... | 2·55 | 5·47 | 2·04 | 12·26 | 4·90 | 0·65 | ... | 0·25 | 28·12 |
| 1870 | 0·12 | ... | 0·12 | ... | 3·60 | 7·97 | 1·85 | 7·35 | 3·20 | 5·05 | 0·35 | ... | 29·61 |
| 1871 | 0·35 | ... | ... | 0·45 | 4·50 | 1·55 | 1·50 | 1·40 | 4·92 | 1·75 | 0·25 | ... | 16·67 |
| 1872 | ... | ... | ... | 1·95 | 1·50 | 3·20 | 2·50 | 2·60 | 8·85 | 4·10 | 1·72 | 0·50 | 26·92 |

GOOTY—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1873 | ... | ... | ... | 0·45 | 2·15 | 0·20 | 1·30 | 2·30 | 3·77 | 6·50 | 0·42 | 0·20 | 17·29 |
| 1874 | ... | ... | ... | 0·30 | 3·45 | 5·42 | 4·90 | 1·07 | 11·65 | 11·52 | 1·30 | ... | 39·61 |
| 1875 | ... | ... | 0·15 | ... | 1·74 | 7·30 | 4·40 | 4·37 | 4·55 | 5·30 | 0·10 | ... | 27·91 |
| 1876 | ... | ... | ... | 2·15 | ... | 1·25 | 1·20 | 1·07 | 2·00 | 0·35 | 0·70 | ... | 8·72 |
| 1877 | ... | ... | 0·05 | ... | 5·00 | 2·64 | 2·59 | 5·21 | 6·53 | 8·79 | 2·60 | ... | 33·41 |
| 1878 | ... | ... | ... | 1·05 | 1·36 | 4·52 | 8·85 | 10·05 | 8·18 | 6·77 | 3·80 | ... | 44·58 |
| 1879 | ... | ... | ... | ... | 4·90 | 3·20 | 8·30 | 2·82 | 2·45 | 3·75 | 0·50 | ... | 25·92 |
| 1880 | ... | ... | ... | ... | 3·65 | 2·80 | 1·40 | 5·07 | 1·15 | 6·10 | 1·55 | ... | 21·72 |
| 1881 | ... | ... | ... | ... | 0·35 | 0·60 | 0·33 | 4·44 | 10·52 | 2·04 | 1·83 | ... | 20·11 |
| 1882 | ... | ... | ... | 0·07 | 0·68 | 0·31 | 1·23 | 5·77 | 4·73 | 2·94 | 4·67 | ... | 20·40 |
| 1883 | ... | ... | 0·08 | 0·20 | 0·20 | 4·11 | 3·60 | 3·77 | 0·72 | 5·06 | 1·52 | ... | 19·26 |
| Mean | 0·04 | 0·07 | 0·07 | 0·49 | 1·87 | 2·66 | 2·88 | 4·07 | 4·40 | 4·07 | 1·09 | 0·08 | 21·79 |
| 1884 | 0·29 | ... | ... | 0·15 | 1·22 | 2·30 | 0·76 | 3·10 | 0·81 | 2·45 | 0·97 | ... | 12·05 |
| 1885 | ... | ... | ... | 0·03 | 2·32 | 1·88 | 4·01 | 2·15 | 5·38 | 10·66 | 0·65 | 2·23 | 29·31 |
| 1886 | ... | ... | ... | 0·15 | 1·93 | 4·07 | 5·76 | 4·03 | 1·76 | 5·01 | 1·38 | 0·26 | 24·35 |
| Mean | 0·05 | 0·06 | 0·06 | 0·46 | 1·87 | 2·66 | 2·94 | 3·98 | 4·23 | 4·26 | 1·09 | 0·16 | 21·82 |

No. 361. NANDYAL.

Latitude N. 15° 30′. Longitude E. 78° 32′. Elevation 1,700 feet.

Administration: MADRAS. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 0·53 | ... | ... | ... | 0·70 | 4·71 | 8·68 | 10·00 | 10·20 | 6·00 | ... | ... | 40·82 |
| 1871 | 0·10 | ... | ... | ... | 2·25 | 1·25 | 9·75 | 2·90 | 9·65 | 1·00 | 0·56 | ... | 27·46 |
| 1872 | ... | ... | ... | 0·63 | 1·11 | 6·73 | 4·35 | 7·16 | 6·90 | 5·00 | 0·85 | 1·40 | 34·13 |
| 1873 | ... | ... | ... | 0·15 | 1·20 | 1·80 | 3·05 | 11·10 | 5·50 | 5·60 | 1·10 | ... | 29·50 |
| 1874 | ... | ... | ... | ... | 2·75 | 7·35 | 9·00 | 2·00 | 36·80 | 9·65 | 0·10 | ... | 67·65 |
| 1875 | ... | ... | 0·50 | ... | 1·65 | 3·30 | 8·55 | 3·00 | 13·00 | 3·50 | ... | ... | 33·50 |
| 1876 | ... | ... | 0·25 | ... | 0·60 | 1·94 | 0·85 | 4·24 | 3·00 | 0·10 | ... | ... | 10·98 |
| 1877 | ... | ... | 2·05 | 0·90 | 1·15 | 2·82 | 0·60 | 3·95 | 11·11 | 5·81 | ... | ... | 28·39 |
| 1878 | ... | ... | ... | 2·52 | 1·40 | 5·36 | 7·84 | 16·55 | 13·41 | 8·75 | 1·95 | ... | 57·78 |
| 1879 | ... | 0·45 | ... | ... | 2·90 | 8·35 | 4·08 | 12·75 | 3·70 | 3·00 | 1·70 | ... | 36·93 |
| 1880 | ... | ... | ... | 0·10 | 2·80 | 6·12 | 1·35 | 8·10 | 7·60 | 4·00 | 2·30 | ... | 32·37 |
| 1881 | ... | ... | ... | 0·14 | 1·31 | 6·30 | 3·17 | 7·92 | 4·51 | 2·93 | 0·38 | ... | 26·66 |
| 1882 | ... | ... | ... | 0·40 | 1·30 | 2·26 | 6·96 | 6·37 | 10·23 | 4·30 | 4·14 | 1·63 | 37·59 |
| 1883 | ... | ... | 0·24 | 1·12 | ... | 7·71 | 6·95 | 7·64 | 5·18 | 7·65 | 1·41 | 0·61 | 38·51 |
| Mean | 0·05 | 0·03 | 0·22 | 0·43 | 1·51 | 4·71 | 5·37 | 7·41 | 10·06 | 4·81 | 1·03 | 0·26 | 35·89 |
| 1884 | 0·98 | ... | ... | 0·50 | 0·67 | 2·11 | 3·26 | 4·26 | 5·13 | 5·62 | 1·82 | 0·20 | 24·55 |
| 1885 | ... | ... | ... | 0·53 | 1·15 | 5·41 | 4·94 | 8·07 | 3·42 | 4·21 | 3·26 | 1·23 | 32·22 |
| 1886 | ... | ... | ... | ... | 0·75 | 4·32 | 8·05 | 8·24 | 3·35 | 12·38 | ... | 0·32 | 37·41 |
| Mean | 0·09 | 0·03 | 0·18 | 0·41 | 1·39 | 4·58 | 5·38 | 7·31 | 8·98 | 5·26 | 1·15 | 0·32 | 35·08 |

No. 362. DHARMAVARAM.

Latitude N. 14° 25'. Longitude E. 77° 46'. Elevation 1,800 feet.

Administration: MADRAS. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 0·02 | ... | 0·50 | ... | 0·30 | 5·20 | 0·60 | 3·40 | 2·20 | 9·90 | 0·70 | ... | 22·82 |
| 1871 | 0·20 | ... | ... | 1·00 | 6·30 | 1·20 | 0·80 | 0·90 | 5·70 | 3·00 | 4·10 | ... | 23·20 |
| 1872 | ... | ... | ... | 1·00 | 1·70 | 2·90 | 2·10 | 0·80 | 8·30 | 5·30 | 3·40 | 1·10 | 26·60 |
| 1873 | ... | 0·30 | ... | 0·70 | 0·50 | 0·80 | ... | 3·80 | 1·70 | 7·25 | 0·30 | ... | 15·35 |
| 1874 | ... | ... | ... | 0·20 | 5·60 | 2·15 | 1·95 | 2·70 | 11·70 | 10·40 | 0·55 | 0·10 | 35·35 |
| 1875 | ... | ... | 0·40 | 0·10 | 1·45 | 1·65 | 2·60 | 1·80 | 2·85 | 2·75 | ... | ... | 13·60 |
| 1876 | ... | ... | 1·30 | ... | 1·15 | 1·60 | ... | 1·00 | 0·85 | ... | ... | ... | 5·90 |
| 1877 | ... | ... | 0·85 | ... | 1·50 | 1·95 | 1·80 | ... | 7·39 | 10·12 | ... | ... | 23·61 |
| 1878 | ... | ... | 0·03 | 0·55 | 1·10 | 7·40 | 4·42 | 11·72 | 9·05 | 7·90 | 3·80 | ... | 45·97 |
| 1879 | ... | 2·57 | ... | 0·20 | 7·05 | 2·15 | 3·87 | 1·55 | 2·80 | 1·45 | 0·15 | ... | 21·79 |
| 1880 | ... | ... | ... | 0·20 | 1·00 | 4·10 | ... | 2·10 | 2·55 | 7·52 | 4·22 | 0·20 | 21·89 |
| 1881 | ... | ... | ... | 0·65 | 0·07 | 0·70 | ... | 3·28 | 4·48 | 2·13 | 2·60 | ... | 13·91 |
| 1882 | ... | ... | ... | ... | 1·85 | .... | 0·45 | 5·00 | 4·53 | 0·85 | 4·90 | ... | 17·58 |
| 1883 | ... | ... | 0·40 | 1·40 | 0·15 | 5·10 | 0·10 | 7·80 | ... | 6·85 | 2·65 | 0·80 | 25·25 |
| Mean | 0·02 | 0·21 | 0·25 | 0·43 | 2·12 | 2·64 | 1·34 | 3·28 | 4·58 | 5·39 | 1·96 | 0·16 | 22·38 |
| 1884 | ... | ... | ... | 0·15 | ... | 1·73 | 0·05 | ... | 1·56 | 4·98 | 1·60 | 0·35 | 10·62 |
| 1885 | ... | ... | 1·00 | ... | 1·55 | 1·35 | 3·30 | 1·00 | 3·75 | 6·20 | ... | 0·40 | 18·55 |
| 1886 | ... | ... | ... | ... | 0·40 | 3·47 | 6·20 | 5·60 | 1·20 | 2·10 | 1·70 | 0·70 | 21·37 |
| Mean | 0·01 | 0·17 | 0·26 | 0·36 | 1·86 | 2·56 | 1·66 | 3·08 | 4·15 | 5·22 | 1·80 | 0·23 | 21·36 |

No. 363. CUDDAPAH.

Latitude N. 14° 26'. Longitude E. 78° 51'. Elevation 477 feet.

Administration: MADRAS. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1852 | ... | ... | 0·15 | 0·85 | 6·00 | 0·75 | 3·09 | 5·35 | 9·35 | ? | 1·40 | 2·95 | ? |
| 1853 | 1·53 | ... | 4·17 | ... | 0·42 | 1·77 | 0·55 | 4·46 | 0·94 | 2·79 | 1·78 | ... | 18·41 |
| 1854 | ... | ... | ... | 0·40 | ... | 1·95 | 5·15 | 4·25 | 2·80 | 4·70 | 7·10 | ... | 26·35 |
| 1855 | Not on record. | | | | | | | | | | | | |
| 1856 | ... | ... | ... | ... | ... | ... | 2·71 | 8·45 | 4·60 | 6·54 | 3·94 | 2·38 | 28·62 |
| 1857 | ... | ... | ... | ... | 2·76 | 7·36 | 2·89 | ... | 1·52 | 7·60 | 6·78 | 0·44 | 29·35 |
| 1858 | ... | ... | ... | ... | 1·00 | ... | 1·58 | 0·25 | 5·68 | 13·40 | ... | ... | 21·91 |
| 1859 | ... | ... | ... | 1·13 | 0·27 | 3·15 | 7·48 | 6·10 | 2·10 | 2·60 | 9·87 | ... | 32·70 |
| 1860 | ... | ... | ... | 0·50 | ... | ... | 1·45 | 6·73 | 6·33 | 4·20 | ... | ... | 19·21 |
| 1861 | ... | ... | 0·20 | 0·15 | 1·60 | 3·80 | 0·80 | 3·61 | 5·00 | 0·30 | 5·41 | ... | 20·87 |
| 1862 | ... | ... | ... | ... | 0·50 | ... | 1·90 | 8·00 | 9·90 | 4·10 | ... | ... | 24·40 |
| 1863 | ... | ... | ... | 1·60 | 6·00 | 3·60 | 2·80 | 6·30 | 3·80 | 3·70 | ... | ... | 27·80 |
| 1864 | ... | ... | ... | ... | ... | 0·10 | 1·80 | 5·50 | ... | 2·40 | 1·80 | ... | 11·60 |
| 1865 | ... | ... | ... | 1·50 | ... | 1·70 | 3·50 | 3·40 | 1·60 | ... | 1·30 | 1·10 | 14·10 |
| 1866 | ... | ... | ... | ... | ... | ... | 4·50 | 5·50 | 1·40 | 4·90 | 0·70 | 2·50 | 19·50 |

CUDDAPAH—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ... | ... | 0·60 | ... | 0·10 | 3·20 | 0·90 | 4·20 | 4·40 | 0·70 | ... | ... | 14·10 |
| 1868 | ... | ... | ... | 1·20 | 0·60 | 3·30 | 8·80 | 3·10 | 8·80 | 2·70 | 1·90 | ... | 30·40 |
| 1869 | ? | ? | ... | ... | 1·20 | 5·20 | 8·00 | 4·60 | 6·30 | 1·16 | 2·61 | 1·28 | 30·35? |
| 1870 | 1·50 | ... | ... | 0·04 | 2·20 | 4·15 | 3·70 | 8·00 | 7·40 | 13·17 | 0·65 | ... | 40·81 |
| 1871 | 0·30 | ... | ... | ... | 2·50 | 0·60 | 5·38 | 3·60 | 0·65 | 2·00 | 2·55 | ... | 17·58 |
| 1872 | ... | ... | ... | ... | 3·00 | 1·35 | 3·40 | 5·25 | 6·90 | 7·60 | 7·45 | 2·00 | 36·95 |
| 1873 | ... | ... | ... | ... | 0·80 | 1·50 | 1·88 | 6·20 | 8·20 | 12·20 | 0·80 | ... | 31·58 |
| 1874 | ... | ... | ... | ... | 4·50 | 2·90 | 4·05 | 1·60 | 30·55 | 11·85 | 2·60 | 0·45 | 58·50 |
| 1875 | ... | ... | ... | ... | 0·50 | 4·10 | 4·05 | 7·65 | 10·70 | 2·60 | ... | ... | 29·60 |
| 1876 | ... | ... | 0·20 | ... | ... | 0·80 | 0·75 | 6·25 | 1·10 | 0·35 | ... | ... | 9·45 |
| 1877 | ... | ... | 1·90 | ... | 1·77 | 4·12 | 1·40 | 2·26 | 4·82 | 3·87 | 0·75 | 0·02 | 20·91 |
| 1878 | ... | ... | ... | 0·40 | 0·90 | 2·25 | 14·35 | 11·43 | 12·11 | 5·22 | 1·85 | 0·15 | 48·66 |
| 1879 | 0·10 | 0·25 | ... | ... | 7·40 | 5·00 | 5·32 | 3·25 | 3·37 | 6·52 | 1·15 | ... | 32·36 |
| 1880 | ... | ... | ... | 0·22 | 0·95 | 3·46 | 2·40 | 2·05 | 4·82 | 5·50 | 11·47 | 0·30 | 31·17 |
| 1881 | ... | ... | ... | ... | 3·10 | 7·62 | 0·90 | 13·27 | 6·35 | 2·16 | 4·25 | ... | 37·65 |
| 1882 | ... | ... | ... | 2·55 | 0·75 | 3·42 | 0·60 | 3·52 | 8·37 | 7·82 | 10·67 | ... | 37·70 |
| 1883 | ... | ... | 0·50 | 0·40 | 0·15 | 3·75 | 0·85 | 7·35 | 2·80 | 11·90 | 1·43 | 3·35 | 32·48 |
| Mean | 0·11 | 0·01 | 0·25 | 0·35 | 1·58 | 2·61 | 3·45 | 5·21 | 5·89 | 5·15 | 2·91 | 0·55 | 28·07 |
| 1884 | 0·15 | ... | ... | ... | 0·35 | 3·25 | 1·40 | 4·43 | 5·20 | 8·03 | 9·15 | 1·55 | 33·51 |
| 1885 | ... | ... | 0·50 | ... | 2·65 | 3·30 | 5·30 | 1·99 | 3·58 | 2·60 | 4·72 | 4·80 | 29·44 |
| 1886 | ... | ... | ... | ... | 2·90 | 1·60 | 4·63 | 7·00 | 3·95 | 10·80 | 1·85 | 1·10 | 33·83 |
| Mean | 0·11 | 0·01 | 0·24 | 0·32 | 1·61 | 2·62 | 3·48 | 5·14 | 5·75 | 5·33 | 3·12 | 0·72 | 28·45 |

No. 364. MADANAPALLE.

Latitude N. 13° 34′. Longitude E. 78° 33′. Elevation 1,800 feet.

Administration : MADRAS. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 0·65 | ... | 1·80 | 0·30 | 2·85 | ... | 1·20 | 3·20 | 2·50 | 9·08 | 1·75 | ... | 23·33 |
| 1871 | 1·65 | ... | 0·43 | 0·50 | 0·65 | 1·14 | 2·83 | 1·15 | 5·93 | 3·03 | 5·90 | ... | 23·21 |
| 1872 | ... | ... | ... | 0·25 | 6·05 | 1·20 | 1·95 | 3·20 | 3·50 | 5·10 | 6·45 | 1·90 | 29·60 |
| 1873 | ... | 1·50 | ... | 0·70 | 0·40 | 0·90 | 0·60 | 3·55 | 3·00 | 17·00 | 0·25 | 0·65 | 28·55 |
| 1874 | ... | ... | 0·15 | ... | 9·55 | 5·65 | 4·05 | 1·30 | 14·55 | 15·55 | 0·75 | 0·75 | 52·30 |
| 1875 | ... | ... | ... | ... | 3·60 | 4·13 | 0·72 | 3·89 | 2·80 | 2·87 | 1·20 | ... | 19·21 |
| 1876 | ... | ... | 0·83 | 3·75 | 0·55 | 4·20 | 1·60 | 2·55 | 2·40 | 0·70 | 0·19 | ... | 16·77 |
| 1877 | ... | ... | 0·90 | ... | 2·86 | 6·06 | 0·30 | 0·47 | 9·04 | 13·46 | 5·30 | 0·57 | 38·96 |
| 1878 | ... | ... | ... | 0·30 | 1·42 | 3·50 | 4·60 | 4·90 | 4·75 | 7·97 | 6·27 | 0·30 | 34·01 |
| 1879 | 0·50 | 0·45 | 1·52 | 0·20 | 5·30 | 1·60 | 3·65 | 0·80 | 2·62 | 6·30 | 0·92 | ... | 23·86 |
| 1880 | ... | ... | ... | 0·55 | 3·15 | 0·30 | 1·47 | 3·42 | 3·15 | 6·65 | 7·65 | 0·80 | 27·14 |
| 1881 | ... | ... | 2·00 | 0·45 | 0·50 | 1·27 | 0·97 | 8·77 | 7·60 | 0·37 | 3·75 | 0·72 | 26·40 |
| 1882 | ... | ... | ... | 2·85 | 1·98 | 1·15 | 1·18 | 2·83 | 2·90 | 1·33 | 14·33 | 0·05 | 28·60 |
| 1883 | ... | ... | ... | 2·00 | 3·35 | 1·75 | 2·15 | 5·65 | 3·90 | 11·45 | 3·43 | 4·95 | 38·63 |
| Mean | 0·20 | 0·14 | 0·55 | 0·85 | 3·01 | 2·35 | 1·95 | 3·26 | 4·90 | 7·20 | 4·15 | 0·76 | 29·32 |

MADANAPALLE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | ... | ... | ... | 0·35 | 0·65 | 1·00 | 0·40 | 2·95 | 1·85 | 10·03 | 5·23 | 2·55 | 25·01 |
| 1885 | ... | ... | 0·60 | ... | 2·20 | 0·55 | 3·00 | 0·65 | 0·10 | 4·15 | 3·62 | 3·20 | 18·07 |
| 1886 | ... | ... | ... | ... | 4·53 | 0·85 | 5·05 | 5·00 | 8·80 | 5·13 | 5·15 | 0·70 | 35·21 |
| Mean | 0·16 | 0·11 | 0·48 | 0·72 | 2·92 | 2·07 | 2·10 | 3·19 | 4·67 | 7·07 | 4·24 | 1·01 | 28·74 |

No. 365. CHANDRAGIRI.

Latitude N. 13° 35′. Longitude E. 79° 22′. Elevation 1,500 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 2·05 | ... | 0·20 | 0·02 | 1·01 | 1·85 | 1·75 | 5·20 | 4·25 | 14·50 | 0·90 | ... | 31·73 |
| 1871 | ... | .... | ... | 0·85 | 3·00 | 2·70 | 7·35 | 1·70 | 9·70 | 1·65 | 9·90 | 0·25 | 37·10 |
| 1872 | ... | ... | ... | ... | 5·50 | 1·20 | 2·10 | 5·70 | 0·60 | 6·70 | 9·60 | 2·00 | 33·40 |
| 1873 | ... | 4·05 | ... | 0·50 | ... | ... | 1·25 | 6·00 | 3·70 | 7·25 | 0·80 | 1·90 | 25·45 |
| 1874 | ... | ... | ... | ... | 5·70 | 3·70 | 4·25 | 1·87 | 11·37 | 13·05 | 6·85 | 1·50 | 47·59 |
| 1875 | ... | ... | 1·90 | ... | 2·65 | 5·77 | 2·05 | 7·20 | 4·20 | 2·85 | 1·70 | 1·80 | 30·12 |
| 1876 | ... | ... | ... | ... | 0·40 | 3·65 | 0·80 | 2·55 | 1·30 | ... | 0·55 | ... | 9·25 |
| 1877 | ... | 0·15 | 0·30 | 1·95 | 2·60 | 5·45 | ... | ... | 12·77 | 5·85 | 7·90 | ... | 36·97 |
| 1878 | ... | ... | 0·15 | 2·00 | 0·95 | ... | 9·00 | 6·00 | 5·50 | 3·00 | 1·60 | ... | 28·20 |
| 1879 | 2·90 | ... | 2·00 | 0·05 | 4·55 | 2·05 | 1·22 | 1·68 | 0·22 | 13·40 | 4·62 | ... | 32·69 |
| 1880 | ... | ... | ... | 1·20 | 3·78 | 2·33 | 1·67 | 6·04 | 7·50 | 5·38 | 14·00 | 0·96 | 42·86 |
| 1881 | ... | ... | ... | ... | 1·87 | 3·37 | 1·00 | 7·54 | 6·34 | 4·45 | 8·10 | 2·10 | 34·77 |
| 1882 | 0·50 | ... | 0·35 | 0·30 | 0·75 | 3·65 | 1·55 | 2·90 | 3·10 | 1·45 | 21·00 | 0·40 | 35·95 |
| 1883 | ... | ... | ... | 1·65 | 0·55 | 1·32 | 3·95 | 3·70 | 6·40 | 11·62 | 6·35 | 6·50 | 42·04 |
| Mean | 0·39 | 0·30 | 0·35 | 0·61 | 2·38 | 2·65 | 2·71 | 4·10 | 5·50 | 6·51 | 6·71 | 1·24 | 33·45 |
| 1884 | ... | ... | 0·30 | ... | 0·40 | 2·40 | 1·35 | 3·38 | 4·05 | 11·85 | 10·30 | 6·25 | 40·28 |
| 1885 | ... | ... | ... | ... | 0·20 | 2·30 | 2·30 | 2·20 | 1·50 | 2·12 | 14·55 | 5·40 | 30·57 |
| 1886 | ... | ... | 0·75 | ... | 4·40 | 0·96 | 6·89 | 5·70 | 1·40 | 5·75 | 7·05 | 0·32 | 33·22 |
| Mean | 0·32 | 0·25 | 0·35 | 0·50 | 2·25 | 2·51 | 2·85 | 4·04 | 4·94 | 6·52 | 7·40 | 1·73 | 33·66 |

No. 366. TADA.

Latitude N. 13° 28′. Longitude E. 80° 5′. Elevation ? feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 4·40 | 1·20 | ... | ... | ... | 3·56 | 3·60 | 8·47 | 6·16 | 13·45 | 5·80 | 0·20 | 46·84 |
| 1871 | ... | ... | 1·00 | ... | 0·50 | 1·65 | 3·25 | 2·30 | 5·90 | 3·65 | 33·45 | 2·05 | 53·75 |
| 1872 | ... | ... | ... | 0·30 | 3·40 | 1·80 | 5·35 | 3·95 | 2·25 | 12·27 | 21·16 | 7·10 | 57·58 |
| 1873 | ... | 9·49 | ... | 0·01 | 0·42 | 1·30 | 1·81 | 2·52 | 1·49 | 12·82 | 10·31 | 3·65 | 43·82 |

TADA—*continued*.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1874 | ... | ... | 0·05 | ... | 2·42 | 6·38 | 5·31 | 3·23 | 6·13 | 18·84 | 7·23 | 3·29 | 52·88 |
| 1875 | ... | ... | 0·15 | 0·11 | ... | 0·93 | 1·74 | 13·59 | 4·30 | 5·60 | 7·50 | 3·45 | 37·37 |
| 1876 | 0·20 | ... | ... | 0·40 | 0·85 | 1·85 | 1·35 | 4·00 | 1·00 | 0·60 | 3·60 | ... | 13·85 |
| 1877 | 0·25 | ... | ... | ... | 8·00 | 1·85 | 1·45 | 3·20 | 3·55 | 9·60 | 9·30 | 4·30 | 41·50 |
| 1878 | ... | ... | ... | 1·75 | 3·05 | 0·30 | 4·05 | 9·60 | 4·40 | 4·20 | 4·20 | 2·25 | 33·80 |
| 1879 | 4·20 | ... | 3·70 | ... | 13·70 | 2·10 | 5·80 | 4·20 | 4·00 | 24·10 | 17·40 | ... | 79·20 |
| 1880 | 0·40 | 0·60 | ... | ... | 0·70 | 2·00 | 2·70 | 2·00 | 2·37 | 9·90 | 27·70 | 5·10 | 53·47 |
| 1881 | 1·55 | ... | ... | ... | 1·00 | 1·25 | 0·15 | 4·15 | 6·50 | 1·15 | 8·65 | 5·40 | 29·80 |
| 1882 | Untrustworthy. | | | | | | | | | | | | |
| 1883 | ... | ... | ... | ... | ... | 5·95 | 4·70 | 0·85 | 1·00 | 16·80 | 5·10 | 9·21 | 43·61 |
| Mean | 0·85 | 0·87 | 0·38 | 0·20 | 2·62 | 2·38 | 3·17 | 4·77 | 3·77 | 10·23 | 12·42 | 3·54 | 45·20 |
| 1884 | 1·05 | ... | ... | ... | 0·65 | 2·15 | 0·75 | 6·75 | 5·17 | 6·50 | 31·05 | 9·35 | 63·42 |
| 1885 | ... | ... | 0·07 | ... | 2·50 | 3·17 | 1·32 | 1·62 | 2·32 | 0·95 | 15·45 | 5·10 | 32·50 |
| 1886 | ... | ... | ... | ... | 5·10 | 1·40 | ... | ... | ... | 4·40 | 9·47 | 1·85 | 22·22 |
| Mean | 0·75 | 0·71 | 0·31 | 0·16 | 2·64 | 2·35 | 2·71 | 4·40 | 3·53 | 9·05 | 13·59 | 3·90 | 44·10 |

No. 367. CHITTOOR.

Latitude N. 13° 13′. Longitude E. 79° 18′. Elevation 1,112 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | ... | 1·10 | 0·62 | 2·08 | 1·07 | 1·20 | 3·09 | 2·00 | 4·29 | 0·31 | 2·76 | 18·52 |
| 1864 | ... | ... | ... | ... | 1·30 | 2·70 | 2·86 | 6·24 | 0·52 | 6·61 | 10·27 | 0·58 | 31·08 |
| 1865 | ... | 0·06 | ... | 1·72 | 2·38 | 3·26 | 4·52 | 5·16 | 1·04 | 0·43 | 4·06 | 5·18 | 27·81 |
| 1866 | ... | ... | ... | ... | 0·31 | 0·56 | 1·65 | 5·76 | 3·86 | 6·92 | 1·10 | 6·27 | 26·43 |
| 1867 | 0·50 | ... | ... | ... | 2·00 | ... | 0·86 | 3·14 | 1·24 | 2·72 | 0·36 | ... | 10·82 |
| 1868 | 0·36 | ... | ... | 0·18 | 1·80 | 2·28 | 3·07 | 3·06 | 3·53 | 5·06 | 3·85 | ... | 23·19 |
| 1869 | ... | ... | 1·12 | 0·42 | 3·44 | 1·72 | 3·14 | 5·00 | 5·40 | 1·80 | 2·70 | 3·30 | 28·04 |
| 1870 | 2·05 | ... | 1·30 | 1·30 | 3·45 | 4·10 | 5·12 | 10·11 | 5·37 | 12·86 | 2·19 | 0·11 | 47·96 |
| 1871 | 0·97 | ... | 2·07 | 1·37 | 4·85 | 0·71 | 6·07 | 2·05 | 13·04 | 7·75 | 8·96 | 0·05 | 47·89 |
| 1872 | ... | ... | ... | ... | 10·29 | 1·18 | 2·15 | 8·66 | 6·52 | 7·72 | 9·61 | 1·90 | 48·03 |
| 1873 | ... | 3·78 | ... | 0·07 | 2·79 | 1·49 | 3·57 | 2·74 | 10·16 | 7·10 | 0·20 | 3·51 | 35·41 |
| 1874 | ... | ... | ... | ... | 12·17 | 5·16 | 2·99 | 1·19 | 12·72 | 14·45 | 2·69 | 0·69 | 52·06 |
| 1875 | 0·05 | ... | ... | 0·18 | 2·15 | 2·92 | 2·05 | 7·93 | 1·92 | 1·48 | 1·08 | 2·80 | 22·56 |
| 1876 | ... | ... | ... | 0·07 | 0·72 | 4·58 | 1·66 | 2·65 | 4·31 | 0·65 | 0·19 | ... | 14·83 |
| 1877 | ... | ... | 1·88 | 0·25 | 4·76 | 3·19 | 0·61 | 4·31 | 9·13 | 11·39 | 6·04 | 1·17 | 42·73 |
| 1878 | ... | ... | ... | 0·45 | 1·50 | 2·18 | 7·00 | 11·21 | 12·26 | 8·63 | 4·41 | 0·69 | 48·33 |
| 1879 | 1·78 | 0·25 | 1·23 | 0·21 | 4·19 | 6·19 | 5·34 | 3·39 | 2·86 | 5·64 | 2·40 | ... | 33·48 |
| 1880 | 0·23 | 0·99 | ... | 1·27 | 3·12 | 0·41 | 3·47 | 8·42 | 8·32 | 8·80 | 8·48 | 2·22 | 45·73 |
| 1881 | ... | ... | 0·20 | ... | 2·48 | 1·72 | 0·89 | 11·83 | 8·82 | 4·33 | 5·35 | 0·59 | 36·21 |

CHITTOOR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | 1·80 | ... | ... | 1·20 | 4·62 | 0·35 | 1·62 | 6·86 | 9·73 | 7·06 | 19·03 | ... | 52·27 |
| 1883 | ... | ... | ... | 0·60 | 1·74 | 2·74 | 2·79 | 6·41 | 6·73 | 12·32 | 6·01 | 3·61 | 42·95 |
| Mean | 0·37 | 0·24 | 0·42 | 0·47 | 3·44 | 2·31 | 2·98 | 5·68 | 6·17 | 6·57 | 4·73 | 1·69 | 35·07 |
| 1884 | ... | ... | ... | 0·94 | 0·30 | 1·69 | 4·94 | 6·14 | 3·54 | 11·90 | 5·96 | 8·71 | 44·12 |
| 1885 | ... | ... | 0·58 | ... | 2·00 | 5·06 | 2·12 | 0·60 | 3·15 | 4·54 | 7·35 | 6·29 | 31·69 |
| 1886 | ... | ... | 0·90 | ... | 4·93 | 1·30 | 4·20 | 5·05 | 6·60 | 4·10 | 3·11 | 0·30 | 30·49 |
| Mean | 0·32 | 0·21 | 0·43 | 0·45 | 3·31 | 2·36 | 3·08 | 5·46 | 5·95 | 6·61 | 4·82 | 2·11 | 35·11 |

No. 368. PALMANER.

Latitude N. 13° 12′. Longitude E. 78° 47′. Elevation 2,214 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | ... | 1·50 | 0·25 | 1·82 | 2·25 | 2·00 | 3·50 | 3·24 | 4·98 | ... | 1·04 | 20·58 |
| 1864 | ... | ... | ... | 0·12 | 3·62 | 4·74 | 2·18 | 2·80 | 0·18 | 5·46 | 6·52 | 0·54 | 26·16 |
| 1865 | ... | ... | ... | 0·24 | 0·86 | 1·58 | 2·92 | 2·96 | ... | ... | 5·78 | 4·16 | 18·50 |
| 1866 | ... | ... | ... | ... | 0·54 | ... | 0·63 | 3·64 | 4·44 | 9·63 | 0·65 | 4·96 | 24·49 |
| 1867 | ... | ... | ... | ... | 2·01 | 0·24 | 5·19 | 0·92 | 0·78 | 2·20 | 0·53 | ... | 11·87 |
| 1868 | 1·30 | ... | ... | 2·50 | 0·50 | 3·07 | 3·84 | 1·48 | 5·48 | 5·90 | 1·90 | ... | 25·97 |
| 1869 | ... | ... | 0·74 | 0·56 | 1·13 | 2·18 | 3·15 | 4·18 | 3·11 | 0·21 | 0·97 | 2·70 | 18·93 |
| 1870 | 0·20 | ... | 0·50 | 0·45 | 1·10 | 4·80 | 2·85 | 4·80 | 6·20 | 11·80 | 2·20 | ... | 34·90 |
| 1871 | 1·10 | ... | 1·80 | 0·10 | 2·25 | 1·50 | 2·70 | 1·50 | 5·55 | 7·35 | 11·20 | ... | 35·05 |
| 1872 | ... | 0·60 | ... | ... | 9·65 | 5·97 | 2·25 | 5·97 | 7·57 | 2·80 | 9·00 | 1·80 | 45·61 |
| 1873 | ... | 2·60 | ... | 0·65 | 0·60 | 5·17 | 0·90 | 5·17 | 6·97 | 10·85 | 0·65 | 1·00 | 34·56 |
| 1874 | ... | ... | ... | ... | 8·82 | 1·03 | 7·61 | 1·03 | 17·41 | 11·23 | 3·11 | 0·75 | 50·99 |
| 1875 | ... | ... | 0·10 | 0·38 | 2·28 | 3·83 | 1·30 | 3·83 | 2·19 | 2·34 | 1·21 | 1·34 | 18·80 |
| 1876 | ... | ... | 0·42 | 0·17 | 1·02 | 2·27 | 3·45 | 2·27 | 1·42 | 0·65 | 1·35 | ... | 13·02 |
| 1877 | ... | ... | 1·55 | 1·40 | 2·37 | 1·72 | 0·25 | 2·25 | 11·74 | 12·20 | 3·60 | 2·60 | 39·68 |
| 1878 | ... | ... | ... | 0·70 | 3·74 | 0·97 | 5·30 | 10·47 | 7·91 | 5·50 | 5·93 | 0·68 | 41·20 |
| 1879 | 0·70 | 1·20 | 0·72 | 0·40 | 4·17 | 3·65 | 4·43 | 2·95 | 0·45 | 6 80 | 1·20 | ... | 26·67 |
| 1880 | ... | 0·02 | ... | 2·21 | 2·49 | 0·07 | 0·75 | 9·70 | 0·87 | 4·69 | 8·74 | 1·05 | 30·59 |
| 1881 | ... | ... | 0·03 | ... | 1·85 | 1·71 | 1·55 | 16·53 | 9·29 | 4·65 | 7·63 | ... | 43·24 |
| 1882 | 1·80 | ... | ... | 1·20 | 2·02 | 0·17 | 1·46 | 6·38 | 6·38 | 2·93 | 15·15 | ... | 37·49 |
| 1883 | ... | ... | ... | ... | 5·00 | 3·85 | 2·31 | 7·18 | 7·95 | 15·84 | 6·54 | 4·67 | 52·54 |
| Mean | 0·24 | 0·21 | 0·35 | 0·54 | 2·75 | 2·38 | 2·72 | 4·74 | 5·20 | 6·10 | 4·47 | 1·30 | 31·00 |
| 1884 | ... | 0·60 | ... | 1·30 | 2·13 | 3·08 | 0·95 | 4·01 | 1·27 | 14·84 | 4·28 | 4·60 | 37·06 |
| 1885 | ... | ... | ... | 0·40 | 1·50 | 1·65 | 1·18 | 0·53 | 6·78 | 9·93 | 4·22 | 4·85 | 31·04 |
| 1886 | ... | ... | 1·00 | ... | 6·55 | 2·48 | 6·04 | 5·51 | 6·00 | 5·70 | 3·10 | 0·46 | 36·84 |
| Mean | 0·21 | 0·21 | 0·35 | 0·54 | 2·83 | 2·38 | 2·72 | 4·57 | 5·13 | 6·60 | 4·39 | 1·55 | 31·48 |

No. 369. VELLORE.

Latitude N. 12° 55′. Longitude E. 79° 10′. Elevation 676 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ? | ? | 0·75 | 1·00 | 0·75 | 0·88 | 0·63 | 1·25 | 3·25 | 3·20 | 0·62 | ... | 12·33? |
| 1864 | ... | ... | ... | ... | ... | 2·06 | 3·42 | 8·09 | 1·22 | 7·27 | 12·22 | 0·36 | 34·64 |
| 1865 | ... | ... | ... | ... | 3·48 | 0·39 | 4·16 | 2·10 | 1·96 | 0·42 | 0·48 | 6·10 | 4·74 | 23·83 |
| 1866 | ... | ... | ... | ... | ... | 0·98 | 0·14 | 0·61 | 10·26 | 4·14 | 14·80 | 2·54 | 7·62 | 41·09 |
| 1867 | ... | ... | ... | ... | 0·01 | 1·19 | 1·62 | 1·26 | 5·48 | 1·50 | 5·10 | 1·58 | 1·00 | 18·74 |
| 1868 | 4·62 | ... | ... | ... | ... | 0·48 | 0·80 | 4·90 | 1·58 | 5·85 | 6·49 | 2·98 | ... | 27·70 |
| 1869 | ... | ... | 0·06 | 1·16 | 2·46 | 2·62 | 2·28 | 7·44 | 8·16 | 1·10 | 3·20 | 4·10 | 32·58 |
| 1870 | 0·50 | ... | ... | ... | 6·00 | 4·00 | 4·80 | 6·70 | 3·90 | 14·40 | 2·10 | 4·25 | 46·65 |
| 1871 | 5·00 | ... | 1·80 | 0·10 | 1·00 | 3·30 | 3·25 | 1·25 | 14·80 | 4·35 | 15·15 | 0·55 | 50·55 |
| 1872 | ... | ... | ... | ... | ... | 9·65 | 1·36 | 2·31 | 8·12 | 3·99 | 7·17 | 14·67 | 2·68 | 49 95 |
| 1873 | ... | 6·43 | ... | 0·80 | 0·96 | 0·32 | 4·17 | 4·22 | 7·29 | 8·61 | 2·04 | 0·94 | 35·78 |
| 1874 | ... | ... | ... | ... | 10·95 | 7·09 | 7·36 | 3·52 | 15·10 | 10·57 | 2·40 | 1·10 | 58·09 |
| 1875 | 0·60 | ... | ... | 0·38 | 1·95 | 1·66 | 1·75 | 10·46 | 4·27 | 6·43 | 0·58 | 1·42 | 29·50 |
| 1876 | ... | ... | ... | ... | 3·29 | 3·55 | 5·85 | 1·50 | 3·28 | 0·88 | 1·93 | ... | 20·28 |
| 1877 | ... | ... | 0·12 | 1·12 | 2·92 | 3·04 | 1·10 | 2·95 | 11·55 | 14·12 | 4·21 | 2·98 | 44·11 |
| 1878 | ... | ... | ... | 0·40 | 3·13 | 2·23 | 9·12 | 12·46 | 4·22 | 6·32 | 3·50 | 3·23 | 44·61 |
| 1879 | 1·45 | 0·80 | 0·25 | ... | 4·60 | 7·00 | 7·47 | 1·51 | 1·40 | 5·82 | 1·64 | ... | 31·94 |
| 1880 | ... | 0·20 | ... | 0·90 | 3·04 | ... | 2·47 | 6·86 | 3·67 | 5·32 | 15·08 | 3·74 | 41·28 |
| 1881 | ... | ... | ... | ... | 0·76 | 2·14 | 1·86 | 9·72 | 9·75 | 2·70 | 8·82 | 0·82 | 36·57 |
| 1882 | 2·15 | ... | ... | 1·56 | 3·22 | 0·96 | 1·22 | 4·41 | 1·54 | 6·63 | 23·58 | 0·15 | 45·42 |
| 1883 | ... | ... | ... | ... | 4·05 | 2·40 | 3·21 | 3·96 | 6·14 | 9·85 | 6·38 | 5·46 | 41·45 |
| Mean | 0·72 | 0·37 | 0·14 | 0·52 | 2·94 | 2·44 | 3·39 | 5·41 | 5·50 | 6·74 | 6·25 | 2·15 | 36·57 |
| 1884 | 0·70 | ... | ... | ... | 0·05 | 1·80 | 1·00 | 5·96 | 2·78 | 11·51 | 8·64 | 14·67 | 47·11 |
| 1885 | ... | ... | 1·15 | ... | 2·55 | 1·62 | 3·21 | 1·44 | 4·14 | 6·27 | 8·17 | 5·90 | 34·45 |
| 1886 | ... | ... | 0·12 | ... | 9·62 | 6·87 | 5·65 | 2·65 | 6·65 | 6·31 | 4·50 | 1·49 | 43·86 |
| Mean | 0·65 | 0·32 | 0·18 | 0·45 | 3·08 | 2·57 | 3·38 | 5·16 | 5·38 | 6·90 | 6·36 | 2·80 | 37·23 |

No. 370. ARCOT.

Latitude N. 12° 54′. Longitude E. 79° 23′. Elevation 558 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | ... | 0·50 | ... | 0·69 | 0·44 | 1·06 | 2·18 | 2·75 | 2·96 | 0·74 | 1·08 | 12·40 |
| 1864 | ... | ... | ... | ... | 0·30 | 2·30 | 3·40 | 6·62 | 1·54 | 4·28 | 8·96 | 0·24 | 27·64 |
| 1865 | ... | ... | ... | 0·12 | 0·05 | 2·20 | 1·67 | 4·43 | 0·25 | 0·36 | 7·62 | 5·48 | 22·18 |
| 1866 | ... | ... | ... | ... | ... | ... | 1·58 | 8·70 | 3·14 | 12·53 | 0·98 | 8·66 | 35·59 |
| 1867 | 0·96 | 0·84 | ... | ? | 0·24 | ... | 5·22 | 5·30 | 2·28 | 1·66 | 1·18 | ... | ? |
| 1868 | 3·24 | ... | ... | ... | ... | 1·00 | 3·70 | 2·08 | 3·92 | 5·78 | 3·76 | 0·86 | 24·34 |
| 1869 | ... | ... | ... | 0·54 | ... | 0·12 | 2·18 | 5·04 | 7·94 | 2·50 | 1·50 | 1·20 | 21·02 |

ARCOT—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 1·35 | ... | 0·40 | ... | 0·19 | 3·85 | 3·20 | 1·72 | 6·42 | 6·75 | 2·25 | ... | 26·13 |
| 1871 | ... | 0·80 | 5·65 | 1·85 | 9·10 | 1·25 | 2·75 | 3·80 | 9·70 | 4·85 | 14·10 | 0·90 | 54·75 |
| 1872 | ... | ... | ... | 0·65 | 11·30 | 1·40 | 3·85 | 6·15 | 3·40 | 6·15 | 12·50 | 2·69 | 48·09 |
| 1873 | ... | 11·60 | ... | 1·40 | 0·30 | 2·28 | 4·50 | 6·60 | 3·55 | 7·35 | 1·60 | 1·02 | 40·20 |
| 1874 | ... | ... | ... | ... | 8·56 | 0·45 | 7·72 | 0·32 | 13·55 | 9·25 | 1·40 | 1·57 | 42·82 |
| 1875 | 2·00 | ... | ... | ... | 1·20 | 0·35 | 3·60 | 11·66 | 3·90 | 3·02 | 1·14 | 0·45 | 27·32 |
| 1876 | ... | ... | ... | 0·35 | 5·33 | 1·89 | 3·65 | 2·92 | 7·54 | 0·46 | 2·93 | ... | 25·07 |
| 1877 | ... | ... | 0·10 | 0·05 | 3·90 | 2·50 | 2·95 | 7·62 | 9·48 | 5·82 | 5·07 | 1·31 | 38·80 |
| 1878 | ... | ... | ... | 1·25 | 1·10 | 5·70 | 4·35 | 15·25 | 4·98 | 6·35 | 3·50 | 1·10 | 43·58 |
| 1879 | 0·40 | ... | 2·85 | ... | 5·70 | 8·39 | 5·80 | 2·82 | 2·16 | 12·69 | 1·83 | ... | 42·64 |
| 1880 | ... | 0·30 | ... | 1·70 | 1·55 | 1·48 | 3·51 | 4·90 | 3·35 | 6·67 | 13·80 | 1·80 | 39·06 |
| 1881 | ... | ... | ... | ... | 0·75 | 6·65 | 2·05 | 18·30 | 15·97 | 1·35 | 9·04 | 1·40 | 55·51 |
| 1882 | 2·10 | ... | ... | 3·25 | 2·32 | 1·09 | 0·71 | 5·12 | 3·52 | 3·80 | 20·20 | 0·25 | 42·36 |
| 1883 | ... | ... | ... | 0·15 | 1·60 | 6·15 | 4·30 | 6·80 | 2·32 | 8·70 | 9·26 | 5·51 | 44·79 |
| Mean | 0·48 | 0·64 | 0·45 | 0·57 | 2·58 | 2·36 | 3·42 | 6·11 | 5·32 | 5·39 | 5·87 | 1·69 | 34·88 |
| 1884 | 0·16 | ... | ... | ... | 0·87 | 1·45 | 1·91 | 4·12 | 5·83 | 14·46 | 9·10 | 14·95 | 52·85 |
| 1885 | ... | ... | 0·45 | ... | 1·14 | 3·66 | 3·30 | 8·90 | 4·94 | 5·59 | 9·64 | 7·33 | 37·95 |
| 1886 | 0·10 | ... | ... | ... | 4·01 | 7·92 | 5·98 | 10·32 | 4·97 | 8·52 | 2·60 | 0·94 | 45·36 |
| Mean | 0·43 | 0·56 | 0·41 | 0·49 | 2·51 | 2·61 | 3·46 | 6·03 | 5·31 | 5·91 | 6·03 | 2·45 | 36·20 |

No. 371. MADRAS.

Latitude N. 13° 4′. Longitude E. 80° 14′. Elevation 22 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1813 | ... | ... | 0·43 | ... | 0·28 | 2·70 | 1·28 | 0·83 | 2·33 | 5·10 | 28·18 | 3·98 | 45·11 |
| 1814 | 0·08 | ... | ... | ... | ... | ... | 1·60 | 4·83 | 8·45 | 7·10 | 6·65 | 3·70 | 32·41 |
| 1815 | 1·65 | ... | ... | ... | ... | ... | 6·47 | 0·80 | 2·85 | 6·25 | 33·18 | 4·80 | 56·00 |
| 1816 | 0·10 | 0·73 | ... | ... | 0·20 | 0·45 | 5·08 | 5·20 | 9·05 | 6·58 | 12·32 | 1·45 | 41·16 |
| 1817 | 0·35 | ... | ... | ... | 0·20 | 0·16 | 1·60 | 3·48 | 7·67 | 19·52 | 24·33 | 6·25 | 63·56 |
| 1818 | ... | ... | ... | 0·60 | ... | 0·75 | 11·75 | 6·45 | 5·40 | 17·90 | 25·63 | 7·77 | 76·25 |
| 1819 | ... | ... | ... | 2·55 | ... | 0·13 | 3·28 | 1·10 | 14·89 | 3·00 | 10·67 | 0·71 | 36·33 |
| 1820 | ... | ... | 6·75 | 0·50 | 17·17 | 0·85 | 4·12 | 3·32 | 1·70 | 12·28 | 4·15 | 19·17 | 70·01 |
| 1821 | 3·60 | ... | 0·32 | 1·70 | ... | 1·10 | 1·20 | 3·18 | 7·30 | 13·03 | 11·35 | 4·35 | 47·13 |
| 1822 | 2·30 | ... | ... | 0·62 | ... | 1·77 | 0·55 | 6·70 | 2·43 | 20·57 | 21·40 | 3·27 | 59·61 |
| 1823 | 1·45 | ... | 0·93 | ... | 0·27 | 2·05 | 2·87 | 3·15 | 4·40 | 10·40 | 0·90 | 0·20 | 26·62 |
| 1824 | 1·27 | ... | ... | ... | 0·05 | 0·45 | 0·25 | 2·65 | 0·48 | 14·35 | 10·27 | 3·95 | 33·72 |
| 1825 | 0·17 | ... | ... | ... | 4·25 | 1·50 | 3·07 | 7·67 | 3·50 | 17·47 | 11·07 | 7·35 | 56·05 |
| 1826 | ... | ... | ... | ... | 1·05 | 7·77 | 2·10 | 9·58 | 2·32 | 0·83 | 26·03 | 11·05 | 60·73 |
| 1827 | 8·60 | 0·07 | ... | ... | 23·30 | 3·02 | 4·90 | 2·27 | 4·44 | 13·71 | 22·12 | 5·98 | 88·41 |
| 1828 | 1·62 | ... | 4·36 | 0·72 | 0·40 | 0·13 | 3·37 | 7·30 | 5·72 | 9·20 | 0·61 | 2·46 | 37·89 |
| 1829 | 0·27 | 3·16 | 0·89 | 0·05 | 1·42 | 2·75 | 1·77 | 2·94 | 2·99 | 6·15 | 8·99 | 5·49 | 36·87 |

MADRAS—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1830 | ... | ... | 0·20 | 0·31 | 0·29 | 2·89 | 7·20 | 2·73 | 4·27 | 6·22 | 3·87 | 4·45 | 32·43 |
| 1831 | 0·04 | ... | 0·17 | ... | 0·94 | 3·90 | 3·13 | 9·50 | 7·20 | 9·35 | 7·93 | 2·19 | 44·35 |
| 1832 | ... | 0·10 | ... | ... | 0·63 | 0·51 | 1·55 | 2·26 | 7·71 | 5·28 | 0·41 | ... | 18·45 |
| 1833 | 0·18 | ... | ... | ... | 0·33 | 1·46 | 1·17 | 7·11 | 3·93 | 9·69 | 9·97 | 3·27 | 37·11 |
| 1834 | 0·06 | ... | ... | 3·65 | 0·20 | 2·43 | 7·08 | 4·10 | 4·87 | 7·04 | 7·96 | 1·61 | 39·00 |
| 1835 | 0·06 | ... | ... | 3·60 | 1·75 | 0·86 | 5·31 | 3·01 | 3·26 | 11·09 | 10·96 | 1·57 | 41·47 |
| 1836 | ... | 0·32 | 0·15 | ... | ... | 0·50 | 4·68 | 9·00 | 0·94 | 8·51 | 18·64 | 2·02 | 44·76 |
| 1837 | ... | ... | ... | 2·23 | 2·56 | 0·18 | 2·65 | 1·69 | 3·80 | 15·79 | 17·17 | 3·19 | 49·26 |
| 1838 | ... | 1·33 | 0·59 | 0·77 | 0·54 | 0·88 | 2·37 | 4·69 | 8·78 | 6·27 | 21·89 | 4·22 | 52·33 |
| 1839 | 3·34 | ... | ... | 1·62 | 0·69 | 2·58 | 4·61 | 6·83 | 11·14 | 0·99 | 21·27 | ... | 53·07 |
| 1840 | ... | ... | ... | 0·03 | ... | 0·48 | 4·43 | 7·82 | 8·36 | 10·16 | 27·25 | 0·12 | 58·65 |
| 1841 | 1·99 | ... | ... | 0·44 | 4·57 | 3·97 | 1·44 | 8·66 | 5·01 | 24·73 | 6·28 | 1·23 | 58·32 |
| 1842 | 1·74 | ... | 0·28 | ... | 0·34 | 1·41 | 3·29 | 3·12 | 5·60 | 7·91 | 12·60 | 0·19 | 36·48 |
| 1843 | 6·50 | 0·02 | 0·74 | 0·04 | 14·11 | 1·90 | 1·37 | 2·23 | 4·20 | 6·31 | 5·27 | 7·59 | 50·28 |
| 1844 | 0·76 | 0·52 | ... | ... | 2·66 | 2·73 | 3·37 | 2·72 | 12·51 | 13·89 | 3·39 | 22·81 | 65·36 |
| 1845 | 1·64 | ... | 0·02 | 0·44 | 1·51 | 2·23 | 2·90 | 1·95 | 4·05 | 3·30 | 4·91 | 15·10 | 38·05 |
| 1846 | 2·94 | 0·23 | ... | ... | 1·34 | 3·70 | 9·12 | 4·68 | 0·92 | 30·59 | 19·39 | 6·90 | 79·81 |
| 1847 | ... | 0·22 | ... | 0·45 | 0·73 | 3·79 | 3·09 | 9·71 | 5·87 | 16·32 | 18·66 | 22·15 | 80·99 |
| 1848 | ... | ... | ... | 6·38 | 0·10 | 1·86 | 3·87 | 5·13 | 3·09 | 13·93 | 17·29 | 3·11 | 54·76 |
| 1849 | 2·50 | ... | ... | 1·12 | 0·04 | 3·90 | 3·58 | 4·89 | 1·65 | 9·19 | 6·14 | 6·80 | 39·81 |
| 1850 | 0·04 | 4·27 | ... | 0·98 | 2·94 | 2·92 | 1·53 | 3·06 | 3·04 | 4·32 | 8·12 | 5·66 | 36·88 |
| 1851 | ... | ... | ... | ... | 18·60 | 1·26 | 6·50 | 4·34 | 1·69 | 5·63 | 24·85 | 1·45 | 64·32 |
| 1852 | ... | ... | 2·62 | ... | 2·22 | 1·89 | 8·00 | 2·26 | 6·78 | 20·60 | 19·40 | 8·92 | 72·69 |
| 1853 | 2·25 | ... | 3·37 | 0·77 | ... | 0·62 | 4·14 | 1·38 | 2·23 | 9·07 | 11·99 | ... | 35·82 |
| 1854 | 0·42 | 0·30 | 0·09 | ... | ... | 1·15 | 4·30 | 7·05 | 6·37 | 10·22 | 9·28 | 4·02 | 43·20 |
| 1855 | 0·94 | 0·68 | 0·26 | 0·07 | ... | 1·12 | 2·69 | 1·65 | 3·75 | 10·61 | 1·47 | 9·08 | 32·32 |
| 1856 | ... | 0·03 | ... | 0·01 | 5·31 | 0·82 | 3·32 | 5·68 | 1·06 | 3·88 | 16·97 | 9·71 | 46·99 |
| 1857 | 0·32 | ... | 0·10 | 0·12 | 0·07 | 2·93 | 2·39 | 0·92 | 1·55 | 37·73 | 5·82 | 1·00 | 52·95 |
| 1858 | ... | 0·02 | ... | 0·83 | 3·03 | 1·63 | 3·08 | 2·11 | 3·61 | 12·07 | 22·12 | ... | 48·50 |
| 1859 | 0·62 | ... | ... | 4·92 | 0·85 | 2·51 | 8·04 | 2·46 | 8·56 | 7·72 | 19·46 | ... | 55·14 |
| 1860 | ... | ... | ... | ... | ... | 1·75 | 2·07 | 2·47 | 4·97 | 14·07 | 2·08 | 0·23 | 27·64 |
| 1861 | ... | ... | 1·04 | ... | 1·28 | 0·66 | 3·18 | 7·88 | 9·25 | 1·54 | 12·32 | 0·04 | 37·19 |
| 1862 | 0·49 | ... | 0·01 | ... | 0·60 | 3·67 | 4·53 | 4·56 | 3·60 | 8·20 | 5·52 | 7·00 | 38·18 |
| 1863 | 1·95 | ... | 0·67 | 5·05 | 0·12 | 1·07 | 7·07 | 3·14 | 3·04 | 17·09 | 2·03 | 13·38 | 54·61 |
| 1864 | ... | ... | ... | 0·23 | 0·03 | 1·95 | 2·20 | 7·32 | 0·83 | 13·76 | 18·48 | 2·43 | 47·23 |
| 1865 | 0·20 | ... | ... | 0·02 | 0·38 | 1·40 | 2·02 | 7·19 | 1·28 | 5·82 | 17·76 | 5·57 | 41·64 |
| 1866 | ... | 0·21 | ... | ... | 0·08 | 0·56 | 1·47 | 4·17 | 2·47 | 8·70 | 11·93 | 21·80 | 51·39 |
| 1867 | 0·17 | ... | ... | 0·11 | 0·07 | 1·86 | 1·89 | 6·70 | 2·43 | 3·39 | 7·37 | 0·38 | 24·37 |
| 1868 | 4·77 | 0·03 | ... | ... | ... | 7·19 | 7·50 | 4·50 | 3·66 | 8·28 | 4·98 | 0·52 | 41·43 |
| 1869 | 0·02 | ... | 0·04 | 0·12 | ... | 1·94 | 5·19 | 4·40 | 4·57 | 3·45 | 8·85 | 3·73 | 32·31 |
| 1870 | 6·55 | 0·05 | 1·72 | ... | ... | 8·63 | 5·70 | 6·94 | 12·58 | 23·04 | 7·26 | 1·63 | 74·10 |
| 1871 | 0·44 | 0·02 | 1·19 | 0·01 | 0·31 | 2·84 | 8·88 | 1·43 | 8·18 | 6·21 | 26·41 | 0·43 | 56·35 |
| 1872 | ... | 0·28 | ... | 1·65 | 4·15 | 0·97 | 2·71 | 7·58 | 2·90 | 18·48 | 28·98 | 5·97 | 73·67 |
| 1873 | 0·01 | 6·28 | ... | 1·37 | 0·02 | 1·96 | 2·23 | 3·39 | 3·02 | 10·61 | 13·51 | 9·43 | 51·83 |
| 1874 | ... | ... | ... | ... | 7·96 | 3·76 | 6·18 | 2·68 | 5·19 | 21·26 | 10·30 | 5·57 | 62·90 |
| 1875 | 0·01 | ... | 1·18 | 0·76 | 0·07 | 0·86 | 1·76 | 7·04 | 4·60 | 6·47 | 11·19 | 3·18 | 37·12 |
| 1876 | 0·12 | ... | ... | 0·71 | 1·19 | 3·10 | 3·77 | 3·00 | 3·26 | 1·04 | 5·30 | 0·11 | 21·60 |
| 1877 | 0·01 | ... | 0·03 | ... | 21·27 | 2·36 | 1·22 | 2·49 | 3·15 | 8·56 | 21·25 | 5·86 | 66·20 |
| 1878 | 0·11 | ... | ... | 0·34 | 1·60 | 0·12 | 4·80 | 5·62 | 6·07 | 6·26 | 2·10 | 1·63 | 28·05 |
| 1879 | 1·30 | ... | 1·50 | ... | 4·43 | 2·10 | 4·30 | 6·61 | 0·54 | 18·23 | 10·91 | 4·33 | 54·25 |
| 1880 | 2·65 | 2·38 | ... | ... | ... | 1·11 | 4·49 | 4·90 | 8·82 | 8·61 | 22·97 | 5·77 | 61·80 |
| 1881 | 0·52 | ... | ... | ... | 0·26 | 2·33 | 2·60 | 5·08 | 8·11 | 1·91 | 15·40 | 7·83 | 44·04 |

MADRAS—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | 0·27 | ... | ... | 0·04 | 0·05 | 4·00 | 3·27 | 3·62 | 1·87 | 7·67 | 29·25 | 0·16 | 50·20 |
| 1883 | 0·24 | 0·07 | ... | ... | ... | 2·31 | 6·38 | 2·98 | 0·56 | 22·18 | 14·92 | 10·90 | 60·54 |
| Mean | 0·95 | 0·30 | 0·42 | 0·65 | 2·24 | 2·02 | 3·82 | 4·51 | 4·74 | 10·80 | 13·40 | 5·04 | 48·89 |
| 1884 | 2·14 | ... | ... | 1·66 | 0·53 | 0·96 | 3·55 | 1·59 | 5·56 | 15·03 | 33·49 | 14·41 | 78·92 |
| 1885 | 0·01 | ... | 0·59 | ... | 0·07 | 3·26 | 0·59 | 3·45 | 5·28 | 7·90 | 21·60 | 5 13 | 47·88 |
| 1886 | 0·52 | ... | 0·36 | ... | 5·78 | 7·67 | 5·61 | 2·57 | 0·85 | 10·09 | 11·08 | 3·25 | 47·78 |
| Mean | 0·95 | 0·29 | 0·41 | 0·64 | 2·24 | 2·09 | 3·79 | 4·43 | 4·71 | 10·81 | 13·75 | 5·15 | 49·26 |

No. 372. CONJEEVERAM.

Latitude N. 12° 50′. Longitude E. 79° 45′. Elevation 250 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | P | P | P | P | P | 0·85 | 5·90 | 3·70 | 5·30 | 10·60 | 3·15 | ... | P |
| 1864 | ... | ... | ... | ... | 0·05 | 1·20 | 1·75 | 4·50 | 11·50 | 3·60 | 13·90 | ... | 36·50 |
| 1865 | ... | ... | ... | ... | 2·60 | 3·25 | 3·65 | 9·57 | 1·50 | 1·90 | 6·70 | 5·50 | 34·67 |
| 1866 | ... | ... | ... | ... | 0·20 | ... | 0·80 | 7·70 | 6·30 | 13·70 | 3·80 | 15·10 | 47·60 |
| 1867 | 1·30 | ... | ... | ... | 1·30 | 1·80 | 4·10 | 6·40 | 5·60 | 4·10 | 4·10 | 1·50 | 30·20 |
| 1868 | 6·00 | ... | ... | ... | 0·90 | 2·10 | 4·80 | 3·10 | 3·30 | 7·30 | 3·90 | ... | 31·40 |
| 1869 | 0·25 | ... | 0·27 | 0·25 | 0·15 | 1·30 | 5·35 | 6·15 | 3·60 | 1·83 | 4·89 | 1·44 | 25·48 |
| 1870 | 2·67 | 0·40 | ... | 1·05 | 0·20 | 3·94 | 4·38 | 5·58 | 5·75 | 11·30 | 6·11 | 1·00 | 42·38 |
| 1871 | ... | 0·20 | 1·50 | ... | 2·65 | 1·45 | 4·30 | 4·01 | 10·44 | 4·34 | 17·00 | 1·45 | 47·34 |
| 1872 | ... | ... | ... | 0·50 | 6·20 | 1·92 | 7·01 | 12·94 | 3·06 | 7·92 | 27·17 | 5·37 | 72·09 |
| 1873 | ... | 8·55 | ... | 2·90 | 0·15 | 0·81 | 3·20 | 2·40 | 2·59 | 7·15 | 2·40 | 0·85 | 31·00 |
| 1874 | ... | ... | ... | ... | 8·90 | 5·57 | 5·09 | 7·33 | 21 20 | 16·10 | 3·05 | 2·70 | 69·94 |
| 1875 | 0·05 | ... | ... | ... | 1·90 | 0·70 | 2·90 | 7·20 | 1·75 | 2·20 | 2·67 | 0·91 | 20·28 |
| 1876 | ... | ... | ... | 0·20 | 0·69 | 2·77 | 4·35 | 3·55 | 7·06 | 0·35 | 4·90 | ... | 23 87 |
| 1877 | 0·30 | ... | 0·20 | ... | 6·62 | 4·29 | 1·15 | 4·62 | 7·70 | 7·59 | 3·07 | 3·00 | 38 54 |
| 1878 | ... | ... | 0·07 | 1·04 | 1·50 | 3·25 | 5·25 | 11·25 | 8·05 | 4·65 | 2 35 | 0·35 | 37·76 |
| 1879 | 1·00 | ... | 1·25 | ... | 2·85 | 4·53 | 6·90 | 6·72 | 4·07 | 10·71 | 3·30 | ... | 41·33 |
| 1880 | 0·10 | ... | ... | 0·17 | 2·45 | 1·20 | 4·35 | 3·35 | 6·00 | 7·00 | 11·45 | 4·80 | 40·87 |
| 1881 | ... | ... | ... | ... | 0·05 | ... | 4·70 | 8·95 | 6·40 | 0·50 | 9·65 | 2·95 | 33·80 |
| 1882 | 0·10 | ... | ... | 1·59 | 0·50 | 0·50 | 3·05 | 3·15 | 5·32 | 2·35 | 23·19 | 0·85 | 40·60 |
| 1883 | ... | ... | ... | ... | ... | 4·25 | 2·85 | 5·10 | 1·70 | 12·96 | 8·10 | 4·20 | 39·16 |
| Mean | 0·59 | 0·46 | 0·16 | 0·39 | 2·02 | 2·18 | 4·09 | 6·06 | 6·10 | 6·58 | 7·85 | 2·47 | 38·95 |
| 1884 | ... | ... | ... | ... | 0·60 | 0·84 | 2·72 | 5·62 | 4·99 | 12·53 | 18·78 | 15·40 | 61·48 |
| 1885 | ... | ... | ... | ... | 3 90 | 3·37 | 2·50 | 3·80 | 5·50 | 3·05 | 16·62 | 4·42 | 43·16 |
| 1886 | ... | ... | 0·50 | ... | 6·30 | 6·85 | 7·10 | 6·10 | 5·00 | 6·04 | 4·22 | 1·70 | 43·81 |
| Mean | 0·51 | 0·40 | 0·16 | 0·33 | 2·23 | 2·36 | 4·09 | 5·95 | 5·99 | 6·66 | 8·52 | 3·06 | 40·26 |

No. 373. CHINGLEPUT.

Latitude N. 12° 42′. Longitude E. 80° 1′. Elevation 150 feet.

Administration : MADRAS. Rainfall Province No. XXI.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1863 | P | P | P | P | P | 1·65 | 0·14 | 8·22 | 4·60 | 4·35 | 4·45 | 7·30 | P |
| 1864 | ... | ... | ... | ... | 0·40 | ... | 2·00 | 4·55 | 2·50 | 5·45 | 10·84 | ... | 25·74 |
| 1865 | ... | ... | ... | ... | 0·32 | 1·00 | 2·05 | 1·20 | 0·76 | 3·64 | 10·57 | 5·90 | 25·44 |
| 1866 | ... | ... | ... | ... | ... | ... | ... | 1·50 | 1·30 | 2·30 | 1·35 | 16·30 | 22 75 |
| 1867 | P | P | P | P | P | P | P | P | P | 2·75 | 4·62 | ... | P |
| 1868 | 2·10 | ... | ... | ... | ... | 1·40 | 0·73 | P | 0·75 | 4·64 | 2·57 | ... | P |
| 1869 | ... | ... | 0·30 | ... | ... | 1·70 | 1·92 | 2·80 | 10·34 | 5·26 | 6·28 | 2·14 | 30·74 |
| 1870 | 1·50 | 0·10 | ... | ... | ... | 3·55 | 5·05 | 2·54 | 6·77 | 15·48 | 7·81 | 0·62 | 43·42 |
| 1871 | 0·92 | 0·30 | 1·30 | ... | 0·57 | 0·85 | 7·12 | 4·87 | 8·78 | 7·27 | 19·22 | 2·85 | 54·05 |
| 1872 | ... | ... | ... | 1·75 | 6·85 | 1·82 | 3·28 | 5·26 | 1·62 | 12·90 | 25·84 | 3·42 | 62·74 |
| 1873 | ... | 6·30 | ... | 0·77 | ... | 1·20 | 0·75 | 6·54 | 6·40 | 9·15 | 4·39 | 1·85 | 37·35 |
| 1874 | ... | ... | ... | ... | 9·60 | 6·14 | 5·57 | 5·49 | 14·64 | 14·75 | 4·20 | 4·15 | 64·54 |
| 1875 | 0·50 | ... | ... | ... | 0·40 | 0·77 | 2·77 | 5·95 | 1·07 | 6·10 | 6·04 | 0·65 | 24·25 |
| 1876 | ... | ... | ... | 0·60 | 0·75 | 3·35 | 6·67 | 2·55 | 1·60 | 0·45 | 4·20 | ... | 20·17 |
| 1877 | 0·25 | ... | ... | ... | 9·42 | 2·52 | 1·29 | 2·49 | 9·34 | 9·01 | 8·25 | 1·72 | 44·29 |
| 1878 | 0·15 | ... | ... | ... | 0·72 | 2·47 | 1·72 | 7·78 | 11·77 | 2·30 | 1·80 | 1·60 | 30·31 |
| 1879 | 0·30 | ... | 1·57 | ... | 1·05 | 6·94 | 8·30 | 11·21 | 4·15 | 10·25 | 6·25 | 1·82 | 51·84 |
| 1880 | 2·12 | ... | ... | ... | 0·02 | 3·04 | 3·74 | 0·97 | 4·99 | 6·02 | 12·51 | 4·84 | 38·25 |
| 1881 | 0·87 | ... | ... | ... | 0·80 | 1·12 | 1·95 | 5·02 | 5·09 | 3·62 | 8·29 | 4·49 | 30·75 |
| 1882 | 0·37 | ... | ... | ... | ... | ... | 3·59 | 4·99 | 2·15 | 2·27 | 20·89 | ... | 34·26 |
| 1883 | ... | ... | ... | ... | ... | 1·70 | 4·07 | 3·55 | 3·35 | 14·38 | 7·15 | 5·05 | 39·25 |
| Mean | 0·48 | 0·35 | 0·17 | 0·16 | 1·60 | 2·06 | 3·14 | 4·60 | 5·10 | 6·78 | 8·45 | 3·08 | 35·97 |
| 1884 | 0·60 | ... | ... | ... | 1·00 | 0·10 | 0·75 | 8·25 | 4·95 | 17·92 | 30·40 | 14·90 | 78·87 |
| 1885 | 0·35 | ... | ... | ... | 1·40 | 3·62 | 2·25 | 2·19 | 2·70 | 5·05 | 20·75 | 4·65 | 42·96 |
| 1886 | 0·15 | ... | 0·20 | ... | 5·42 | 9·15 | 7·25 | 6·85 | 1·24 | 7·71 | 6·85 | 2·61 | 47·43 |
| Mean | 0·46 | 0·30 | 0·15 | 0·14 | 1·74 | 2·35 | 3·17 | 4·76 | 4·82 | 7·21 | 9·81 | 3·62 | 38·53 |

No. 374. TINDIVANAM.

Latitude N. 12° 14′. Longitude E. 79° 41′. Elevation 400 feet.

Administration : MADRAS. Rainfall Province No. XXI.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1863 | P | P | 1·50 | 4·20 | 0·55 | 2·61 | 2·30 | 8·00 | P | P | P | P | P |
| 1864 | ... | ... | ... | 1·20 | ... | 0·85 | 1·65 | 4·25 | 1·20 | 4·08 | 6·15 | 1·70 | 21·08 |
| 1865 | ... | ... | ... | 0·90 | 2·98 | 3·70 | 2·50 | 5·45 | 8·65 | 3·90 | 6·30 | 1·80 | 36·18 |
| 1866 | ... | ... | ... | 0·30 | 0·60 | 1·10 | 0·50 | 14·30 | 2·30 | 13·40 | 7·80 | 12·63 | 52·93 |
| 1867 | 0·15 | ... | ... | 1·40 | 3·63 | ... | 2·10 | 7·05 | 2·80 | 5·00 | 4·90 | 0·25 | 27·28 |
| 1868 | 4·20 | ... | ... | 0·20 | ... | 2·90 | 2·50 | 6·15 | 7·30 | 8·30 | 4·25 | ... | 35·80 |
| 1869 | ... | ... | ... | 0·60 | 0·15 | 1·40 | 1·25 | 4·60 | 8·00 | 1·70 | 5·70 | 2·60 | 26·00 |
| 1870 | 0·85 | ... | ... | ... | 0·25 | 2·10 | 4·30 | 7·10 | 7·10 | 10·35 | 5·25 | 3·25 | 40·55 |
| 1871 | ... | ... | 1·85 | ... | 3·53 | 2·60 | 2·58 | 5·28 | 8·80 | 7·45 | 18·55 | 1·30 | 51·94 |
| 1872 | ... | ... | ... | ... | 8·15 | ... | 2·70 | 6·55 | 5·70 | 12·80 | 26·35 | 9·10 | 71·35 |

TINDIVANAM—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1873 | ... | 13·10 | ... | 0·25 | 1·00 | 2·00 | 1·30 | 6·15 | 5·95 | 12·90 | 4·15 | 0·95 | 47·75 |
| 1874 | ... | ... | ... | ... | 9·15 | 1·55 | 7·05 | 9·70 | 13·60 | 16·90 | 4·55 | 1·35 | 63·85 |
| 1875 | 0·80 | ... | ... | ... | 2·55 | 1·60 | 2·55 | 9·55 | 4·10 | 6·48 | 2·05 | 1·10 | 30·78 |
| 1876 | ... | ... | ... | 1·00 | 2·55 | 7·05 | 5·15 | 9·65 | 3·70 | 2·25 | 1·60 | ... | 32·95 |
| 1877 | ... | ... | ... | 0·10 | 9·65 | 1·47 | 1·90 | 1·02 | 12·05 | 12·70 | 7·40 | 3·03 | 49·32 |
| 1878 | ... | ... | ... | 0·65 | 2·70 | 0·40 | 2·65 | 7·00 | 8·96 | 3·35 | 7·25 | 1·77 | 34·73 |
| 1879 | ... | ... | 2·50 | ... | 1·00 | 2·54 | 5·23 | 5·15 | 4·78 | 10·15 | 1·15 | 0·15 | 32·65 |
| 1880 | 0·55 | ... | ... | ... | 1·65 | 2·10 | 6·05 | 5·60 | 7·40 | 10·45 | 20·10 | 5·60 | 59·50 |
| 1881 | 0·40 | ... | ... | ... | 0·91 | 2·30 | 3·00 | 6·05 | 6·45 | ... | 5·90 | 1·30 | 26·31 |
| 1882 | 1·20 | ... | ... | 6·60 | 3·20 | 0·75 | 2·30 | 7·30 | 5·30 | 3·95 | 12·30 | ... | 36·90 |
| 1883 | ... | ... | ... | ... | 0·70 | 3·00 | 3·55 | 7·80 | 4·68 | 11·35 | 6·60 | 5·30 | 42·98 |
| Mean | 0·41 | 0·66 | 0·28 | 0·54 | 2·61 | 2·00 | 3·01 | 6·84 | 6·44 | 7·87 | 7·92 | 2·66 | 41·24 |
| 1884 | 1·20 | ... | ... | ... | 0·70 | 0·55 | 0·20 | 6·25 | 5·75 | 14·96 | 25·36 | 23·93 | 78 90 |
| 1885 | ... | ... | 0·35 | ... | ... | 1·63 | 3·20 | 7·43 | 11·00 | 8·28 | 10·25 | 2·20 | 44·34 |
| 1886 | ... | ... | 0·80 | ... | 6·73 | 5·58 | 4·64 | 8·12 | 13·03 | 3·73 | 5·70 | 1·93 | 50·26 |
| Mean | 0·41 | 0·55 | 0·29 | 0·48 | 2·60 | 2·07 | 2·96 | 6·90 | 6·90 | 8·02 | 8·68 | 3·53 | 43·39 |

No. 375. HOSUR.

Latitude N. 12° 47′. Longitude E. 77° 54′. Elevation 3,000 feet.

Administration: MADRAS. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 0·47 | ... | 0·03 | 0·07 | 3·83 | 3·50 | 3·48 | 5·05 | 3·92 | 10·78 | 0·93 | ... | 32·06 |
| 1871 | 0·30 | ... | 6·40 | ... | 4·55 | 1·00 | 2·80 | 3·98 | 5·15 | 3·90 | 4·70 | ... | 32·78 |
| 1872 | ... | 1·10 | ... | 2·70 | 7·03 | 3·28 | 1·65 | 5·35 | 6·33 | 3·00 | 5·95 | 4 68 | 41·07 |
| 1873 | ... | 0·75 | 0·20 | ... | ... | 0·40 | 0·20 | 5·33 | 3·18 | 7·25 | 0·60 | 1·58 | 19·49 |
| 1874 | ... | ... | 0·25 | ... | 9·98 | 1·65 | 2·32 | 6·67 | 11·40 | 8·73 | 5·40 | 0·30 | 46·70 |
| 1875 | ... | ... | 0·70 | 3·10 | 8·15 | 3·25 | 1·48 | 0·60 | 1·35 | 2·72 | 0·45 | ... | 21·80 |
| 1876 | ... | ... | ... | 0·60 | 5·15 | ... | 0·90 | 5·93 | 4·18 | 0·08 | ... | ... | 16·84 |
| 1877 | ... | ... | 0·55 | 2·35 | 1·71 | 4·50 | 0·50 | 1·11 | 11·15 | 12·38 | 4·54 | 0·20 | 38·09 |
| 1878 | ... | ... | ... | 2·15 | 4·10 | 5·47 | 4·30 | 9·25 | 4·00 | 3·00 | 2·25 | 0·65 | 35·17 |
| 1879 | 0·45 | 2·85 | 1·25 | 1·50 | 3·25 | 0·15 | 9·57 | 2·85 | 3·87 | 4·61 | 1·70 | ... | 32·05 |
| 1880 | 2·40 | ... | ... | 2·20 | 9·85 | 0·99 | 4·89 | 7·36 | 0·80 | 8·86 | 5·23 | 0·05 | 42·63 |
| 1881 | ... | ... | 1·20 | 1·00 | 2·61 | 0·38 | 0·35 | 5·17 | 10·92 | 0·37 | 4·38 | 0·08 | 26·46 |
| 1882 | 0·60 | ... | ... | 0·83 | 6·93 | 1·05 | 3·18 | 9·47 | 2·36 | 2·03 | 10·76 | ... | 37·21 |
| 1883 | ... | ... | 0·18 | 2·73 | 2·85 | 0·72 | 2·73 | 7·70 | 1·50 | 12·80 | 3·58 | 3·18 | 37·97 |
| Mean | 0·30 | 0·34 | 0·77 | 1·37 | 5·00 | 1·88 | 2·74 | 5·42 | 5·01 | 5·75 | 3·61 | 0·77 | 32·96 |
| 1884 | ... | ... | ... | 0·85 | 2·40 | 0·30 | 0·15 | 3·75 | 1·47 | 6·93 | 3·66 | 1·98 | 21·49 |
| 1885 | ... | ... | 1·05 | 0·40 | 1·56 | 1·61 | 0·95 | 0·20 | 3·16 | 12·46 | 2·55 | 6·25 | 30·19 |
| 1886 | ... | ... | 0·10 | 0·70 | 6·00 | 4·90 | 6·75 | 7·40 | 11·05 | 1·75 | 4·48 | 1·30 | 44·43 |
| Mean | 0·25 | 0·28 | 0·70 | 1·25 | 4·70 | 1·95 | 2·72 | 5·13 | 5·05 | 5·98 | 3·60 | 1·19 | 32·80 |

No. 376. TIRUPATUR.

Latitude N. 12° 30′. Longitude E. 78° 37′. Elevation 2,700 feet.

Administration : MADRAS. Rainfall Province No. XXI.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1870 | 0·65 | ... | 0·80 | 0·65 | 4·25 | 3·35 | 2·10 | 7·25 | 6·90 | 15·10 | 0·75 | 0·40 | 42·20 |
| 1871 | 0·30 | 2·50 | 3·95 | ... | 5·05 | 3·30 | 4·15 | 5·60 | 10·25 | 9·25 | 7·55 | 0·40 | 52·30 |
| 1872 | ... | ... | ... | 1·15 | 7·40 | 1·80 | 7·80 | 6·95 | 2·55 | 3·85 | 8·60 | 2·75 | 42·85 |
| 1873 | ... | 2·40 | ... | 1·15 | 1·70 | ... | 5·55 | 3·50 | 11·85 | 8·95 | 0·40 | 0·25 | 35·75 |
| 1874 | ... | ... | ... | 0·30 | 16·80 | 4·60 | 3·95 | 1·95 | 17·95 | 9·45 | 1·10 | 0·15 | 56·25 |
| 1875 | ... | ... | ... | 0·15 | 5·35 | 5·50 | 1·05 | 10·50 | 4·05 | 4·10 | 0·15 | ... | 30·85 |
| 1876 | ... | ... | 0·80 | 0·05 | 4·00 | 5·10 | 2·35 | 1·50 | 7·60 | 1·25 | 0·05 | ... | 22·70 |
| 1877 | ... | ... | 0·70 | 0·25 | 5·45 | 2·55 | ... | 0·50 | 14·90 | 8·75 | 3·75 | 0·65 | 37·50 |
| 1878 | ... | ... | 0·05 | 1·25 | 5·55 | 2·30 | 6·50 | 4·35 | 5·95 | 7·70 | 6·45 | 0·75 | 40·85 |
| 1879 | 0·95 | 0·40 | 1·40 | 0·60 | 3·05 | 5·60 | 10·40 | 3·71 | 4·90 | 3·98 | 0·15 | ... | 35·14 |
| 1880 | ... | 0·15 | ... | 1·30 | 7·05 | 0·60 | 0·75 | 6·65 | 3·00 | 8·45 | 8·60 | ... | 36·55 |
| 1881 | ... | ... | ... | 0·45 | 5·15 | 0·13 | 1·80 | 7·05 | 4·25 | 1·20 | 8·00 | ... | 28·03 |
| 1882 | 0·35 | ... | ... | 0·25 | 5·00 | 0·20 | 4·48 | 10·05 | 2·95 | 4·55 | 10·31 | ... | 38·14 |
| 1883 | ... | ... | 0·65 | 2·90 | 4·95 | 2·35 | 3·60 | 3·40 | 3·30 | 9·45 | 5·85 | 1·90 | 38·35 |
| Mean | 0·16 | 0·39 | 0·60 | 0·75 | 5·77 | 2·67 | 3·89 | 5·21 | 7·17 | 6·86 | 4·41 | 0·52 | 38·40 |
| 1884 | ... | ... | ... | 0·65 | 1·80 | 3·00 | ... | 6·28 | 2·30 | 8·45 | 6·38 | 5·58 | 34·44 |
| 1885 | ... | ... | ... | ... | 3·10 | 1·99 | 2·66 | 2·13 | 5·98 | 5·68 | 2·45 | 2·83 | 26·82 |
| 1886 | ... | ... | 2·28 | 0·40 | 5·50 | 3·50 | 2·30 | 13·80 | 12·85 | 2·10 | 2·60 | 1·80 | 47·13 |
| Mean | 0·13 | 0·32 | 0·63 | 0·68 | 5·36 | 2·70 | 3·50 | 5·60 | 7·15 | 6·60 | 4·30 | 1·03 | 38·00 |

No. 377. ATUR.

Latitude N. 11° 36′. Longitude E. 78° 39′. Elevation 850 feet.

Administration : MADRAS. Rainfall Province No. XXI.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1863 | ... | ... | 0·70 | 2·30 | 3·30 | 1·10 | 1·40 | 1·60 | 2·10 | 4·80 | 3·80 | 3·70 | 24·80 |
| 1864 | ... | ... | ... | 1·00 | 5·60 | ... | 0·80 | 3·60 | 4·50 | 8·00 | 5·00 | ... | 28·50 |
| 1865 | ... | ... | ... | 2·60 | 3·80 | ... | 4·80 | 1·90 | 4·60 | 7·60 | 1·40 | 0·50 | 27·20 |
| 1866 | ... | ... | ... | 1·30 | 4·00 | 0·90 | 1·00 | 6·85 | 7·90 | 11·20 | 2·30 | 3·40 | 38·85 |
| 1867 | ... | ... | ... | 0·80 | 5·60 | ... | 1·10 | 2·60 | 3·60 | 7·20 | 0·20 | ... | 21·10 |
| 1868 | 4·90 | 0·97 | ... | 0·30 | 5·50 | 1·80 | 6·80 | 1·80 | 4·90 | 6·70 | 1·40 | ... | 35·07 |
| 1869 | ... | ... | 2·60 | 1·70 | 3·80 | 2·80 | 4·40 | 1·90 | 4·40 | 7·70 | 6·20 | 1·80 | 37·30 |
| 1870 | 0·15 | ... | 1·50 | 2·75 | 4·25 | 3·28 | 1·05 | 3·80 | 5·95 | 8·78 | 3·28 | 1·05 | 35·84 |
| 1871 | 1·15 | 0·90 | ... | 1·78 | 5·20 | 0·70 | 0·83 | 1·53 | 4·40 | 11·23 | 9·70 | 0·50 | 37·92 |
| 1872 | ... | ... | ... | 1·95 | 5·75 | 1·03 | 2·73 | 2·54 | 7·30 | 3·39 | 5·84 | 2·10 | 32·63 |
| 1873 | ... | 3·59 | ... | 1·70 | 3·58 | ... | 1·03 | 1·55 | 6·80 | 10·37 | 1·10 | 0·38 | 30·10 |
| 1874 | ... | 0·09 | 0·48 | 0·20 | 5·19 | 1·17 | 2·00 | 2·49 | 10·80 | 12·90 | 2·80 | 1·10 | 39·22 |
| 1875 | ... | ... | ... | 2·60 | 3·50 | 3·55 | 1·45 | 2·98 | 7·50 | 7·18 | 10·05 | 0·70 | 39·51 |
| 1876 | ... | ... | 1·35 | ... | 2·30 | 1·05 | 2·30 | 4·88 | 3·85 | 3·18 | 2·80 | 0·30 | 22·01 |
| 1877 | ... | ... | 2·60 | 0·25 | 4·37 | 2·70 | ... | 2·20 | 5·96 | 13·50 | 2·57 | 2·98 | 37·13 |
| 1878 | 0·20 | ... | ... | 5·20 | 3·00 | 3·45 | 7·10 | 6·34 | 4·15 | 1·27 | 6·55 | 0·72 | 37·98 |

ATUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1879 | 1·05 | 0·15 | 3·40 | 0·25 | 2·45 | 1·70 | 11·38 | 3·45 | 5·67 | 8·95 | 0·80 | ... | 39·25 |
| 1880 | 0·30 | ... | ... | 2·15 | 7·00 | 0·25 | 1·16 | 7·50 | 1·23 | 7·05 | 14·55 | 1·05 | 42·24 |
| 1881 | ... | ... | 0·45 | ... | 2·38 | 0·58 | 1·10 | 6·10 | 9·74 | 1·90 | 7·29 | 0·85 | 30·39 |
| 1882 | 1·30 | ... | ... | 2·20 | 10·20 | 0·40 | 1·70 | 8·75 | 2·80 | 0·80 | 10·25 | 0·75 | 45·15 |
| 1883 | ... | ... | 1·90 | 1·10 | 5·50 | 1·35 | 6·20 | 8·30 | 2·90 | 11·38 | 8·35 | 1·55 | 48·53 |
| Mean | 0·43 | 0·27 | 0·71 | 1·53 | 4·58 | 1·32 | 2·87 | 3·94 | 5·29 | 7·67 | 5·06 | 1·12 | 34·79 |
| 1884 | 0·65 | ... | 0·25 | ... | 3·00 | 2·60 | ... | 6·70 | 2·20 | 9·80 | 5·85 | 4·80 | 35·85 |
| 1885 | ... | ... | ... | ... | 3·65 | 2·95 | 0·35 | 3·70 | 3·70 | 12·35 | 3·50 | 3·00 | 33·20 |
| 1886 | ... | ... | ... | ... | 4·05 | 1·20 | 4·55 | 5·85 | 2·50 | 2·40 | 0·70 | ... | 21·25 |
| Mean | 0·40 | 0·24 | 0·63 | 1·34 | 4·46 | 1·44 | 2·72 | 4·12 | 4·98 | 7·74 | 4·85 | 1·30 | 34·22 |

No. 378. VRIDDHACHALAM.

Latitude N. 11° 32′. Longitude E. 79° 24′. Elevation 300 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1864 | ... | ... | ... | 0·70 | 2·00 | 1·00 | 2·22 | 3·75 | 4·40 | 5·30 | 4·30 | 1·05 | 24·72 |
| 1865 | ... | ... | ... | ... | 5·80 | 1·50 | 4·80 | 3·10 | 4·20 | 4·99 | 3·64 | 2·13 | 30·16 |
| 1866 | ... | ... | ... | ... | ... | 0·30 | 1·68 | 4·05 | 2·60 | 5·95 | 1·63 | 9·48 | 25·69 |
| 1867 | ... | ... | ... | ... | 1·43 | 0·45 | 1·66 | 1·43 | 3·33 | 2·35 | 1·48 | 0·20 | 12·33 |
| 1868 | 5·08 | ... | ... | ... | 0·90 | 0·10 | 1·20 | 2·89 | 1·53 | 3·56 | 1·21 | 0·20 | 16·67 |
| 1869 | ... | ... | 0·05 | 0·83 | ... | 0·63 | 2·75 | 1·61 | 5·28 | 5·80 | 16·35 | 2·66 | 35·96 |
| 1870 | ... | ... | ... | ... | ... | 1·90 | 1·75 | 6·40 | 2·00 | 4·30 | 5·75 | 4·70 | 26·80 |
| 1871 | 1·30 | 0·90 | ... | 0·50 | 3·40 | 1·60 | 0·80 | 5·90 | 11·60 | 5·30 | 11·10 | 2·45 | 44·85 |
| 1872 | ... | ... | ... | 1·35 | 3·05 | 2·00 | 5·68 | 5·25 | 2·38 | 2·80 | 12·50 | 5·25 | 40·26 |
| 1873 | ... | 6·30 | ... | 2·10 | 1·55 | 0·15 | 1·45 | 2·05 | 3·10 | 7·00 | 5·10 | 0·10 | 28·90 |
| 1874 | ... | ... | 0·30 | 0·45 | 1·55 | 3·55 | 2·35 | 2·25 | 9·35 | 9·50 | 3·90 | 3·70 | 36·90 |
| 1875 | 0·55 | ... | 0·80 | 1·85 | 1·05 | 1·35 | 1·40 | 8·70 | 6·65 | 1·20 | 3·00 | 1·45 | 28·00 |
| 1876 | ... | ... | ... | 0·20 | 2·95 | 0·98 | 1·85 | 8·48 | 2·80 | 0·60 | 2·75 | 0·45 | 21·06 |
| 1877 | ... | ... | ... | ... | 3·45 | 1·30 | 2·00 | 2·05 | 10·65 | 13·53 | 7·40 | 8·70 | 49·08 |
| 1878 | ... | ... | ... | ... | 3·60 | 1·30 | 6·25 | 7·60 | 8·95 | 3·40 | 6·65 | 0·90 | 38·65 |
| 1879 | ... | ... | 1·80 | 0·50 | 0·40 | 3·80 | 7·50 | 3·20 | 7·95 | 6·00 | 2·05 | 0·10 | 33·30 |
| 1880 | ... | ... | ... | 0·70 | 2·90 | 1·25 | 1·45 | 6·50 | 1·20 | 13·30 | 17·25 | 2·60 | 47·15 |
| 1881 | ... | ... | ... | ... | ... | 0·40 | ... | 4·45 | 4·30 | 1·35 | 3·45 | 6·15 | 20·10 |
| 1882 | 2·00 | ... | ... | 1·20 | 3·00 | 1·50 | 3·80 | 14 10 | 2·10 | 4·00 | 11·60 | ... | 43·30 |
| 1883 | ... | ... | ... | ... | 1·10 | 1·65 | 3·40 | 6·65 | 2·55 | 18·20 | 9·15 | 1·30 | 44·00 |
| Mean | 0·45 | 0·36 | 0·15 | 0·52 | 1·91 | 1·34 | 2·70 | 5·02 | 4·85 | 5·92 | 6·51 | 2·68 | 32·41 |
| 1884 | 1·10 | ... | ... | ... | 2·10 | 0·90 | 0·20 | 3·45 | 1·75 | 16·40 | 20·60 | 21·55 | 68·05 |
| 1885 | ... | ... | ... | ... | 0·25 | 1·05 | 1·25 | 7 63 | 8·45 | 8·48 | 12·30 | 6 63 | 46·04 |
| 1886 | 0·40 | ... | 1·80 | ... | 5·28 | 0·50 | 3·73 | 13·20 | 5·90 | 3·30 | 2·27 | 3·30 | 39·68 |
| Mean | 0·45 | 0·31 | 0·21 | 0·45 | 1·99 | 1·27 | 2·57 | 5·42 | 4·91 | 6·38 | 7·19 | 3·70 | 34·85 |

No. 379. CUDDALORE.

Latitude N. 11° 43′. Longitude E. 79° 49′. Elevation 20 feet.

Administration : MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1853 | 3·25 | ... | 3·70 | ... | 0·45 | 0·05 | 0·40 | 1·75 | 5·85 | 8·10 | 18·70 | ... | 42·25 |
| 1854 | 0·70 | ... | 0·20 | ... | ... | 2·00 | 3·45 | 1·10 | 1·20 | 8·55 | 9·80 | ... | 27·00 |
| 1855 to 1862 | Records wanting. | | | | | | | | | | | | |
| 1863 | P | P | 0·30 | 4·00 | 1·70 | ... | 0·30 | 7·07 | P | P | P | P | P |
| 1864 | ... | ... | ... | 0·40 | 1·40 | 0·30 | 0·20 | 1·10 | ... | 10·80 | 7·93 | 2·90 | 25·03 |
| 1865 | 0·50 | ... | ... | 1·50 | 1·05 | 0·40 | 0·30 | 1·40 | 5·50 | 4·88 | 8·44 | 1·15 | 25·12 |
| 1866 | ... | ... | ... | ... | ... | ... | 1·20 | 3·35 | 5·10 | 11·23 | 5·68 | 10·84 | 37·40 |
| 1867 | ... | ... | ... | ... | 1·75 | ... | 0·38 | 4·65 | 3·00 | 5·00 | 4·10 | 1·50 | 20·38 |
| 1868 | 5·55 | ... | ... | ... | ... | 1·85 | 2·55 | 4·03 | 2·73 | 8·30 | 5·96 | 1·60 | 32·57 |
| 1869 | 0·80 | 0·10 | ... | 0·80 | 0·05 | 1·55 | 0·75 | 1·38 | 6·80 | 11·96 | 21·50 | 3·30 | 48·99 |
| 1870 | 0·20 | ... | ... | ... | ... | 2·94 | 3·40 | 7·03 | 2·00 | 9·86 | 19·56 | 8·55 | 53·54 |
| 1871 | 1·20 | ... | 1·60 | 0·10 | 0·25 | 1·00 | 3·48 | 0·45 | 12·38 | 11·76 | 18·86 | 2·96 | 54·04 |
| 1872 | ... | 0·15 | 0·65 | 5·75 | 7·08 | ... | 7·87 | 7·50 | 3·10 | 5·88 | 32·48 | 7·24 | 77·70 |
| 1873 | 0·15 | 5·95 | ... | 6·50 | 0·60 | 0·60 | 1·75 | 4·55 | 3·76 | 12·62 | 11·10 | 1·43 | 49·01 |
| 1874 | ... | ... | ... | ... | 4·80 | 4·30 | 5·25 | 4·47 | 8·18 | 5·00 | 8·16 | 5·63 | 45·79 |
| 1875 | ... | ... | ... | 2·53 | 1·35 | ... | 1·00 | 11·07 | 6·15 | 3·65 | 7·73 | 4·06 | 37·54 |
| 1876 | 0·04 | ... | 0·06 | 1·65 | 0·78 | 1·03 | 2·01 | 7·70 | 1·51 | 1·32 | 12·18 | 1·29 | 29·57 |
| 1877 | ... | ... | ... | ... | 7·73 | 1·22 | 1·24 | 2·29 | 8·26 | 10·50 | 9·13 | 16·95 | 57·32 |
| 1878 | 0·33 | ... | ... | 0·30 | 0·27 | 4·05 | 0·59 | 4·80 | 7·66 | 3·20 | 6·75 | 2·39 | 30·34 |
| 1879 | 0·95 | ... | 1·25 | ... | 2·82 | 2·92 | 3·76 | 4·78 | 2·46 | 9·18 | 10·96 | 9·85 | 48·93 |
| 1880 | 0·95 | 0·15 | ... | 0·05 | ... | 1·59 | 4·08 | 6·57 | 5·56 | 6·38 | 24·82 | 7·45 | 57·60 |
| 1881 | 1·18 | ... | ... | ... | 0·32 | 0·61 | 2·33 | 5·24 | 6·44 | ... | 6·71 | 8·17 | 31·00 |
| 1882 | 3·29 | ... | ... | ... | 0·43 | 1·45 | 3·26 | 8·79 | 4·15 | 7·41 | 12·26 | 2·33 | 43·37 |
| 1883 | 0·05 | 0·58 | ... | 0·10 | ... | 2·01 | 2·48 | 6·45 | 0·51 | 15·00 | 12·66 | 4·51 | 44·35 |
| Mean | 0·87 | 0·31 | 0·34 | 1·03 | 1·43 | 1·30 | 2·26 | 4·67 | 4·65 | 7·75 | 12·52 | 4·73 | 41·86 |
| 1884 | 2·25 | ... | ... | ... | 0·04 | 0·34 | 1·49 | 8·41 | 3·59 | 14·88 | 44·08 | 27·07 | 102·15 |
| 1885 | 0·05 | ... | 0·50 | ... | 0·10 | 1·22 | 2·43 | 2·59 | 7·03 | 8·42 | 22·11 | 7·45 | 51·90 |
| 1886 | 2·57 | ... | 1·07 | ... | 7·32 | 4·67 | 2·84 | 13·89 | 3·30 | 8·35 | 11·44 | 4·35 | 59·80 |
| Mean | 0·96 | 0·28 | 0·36 | 0·91 | 1·55 | 1·39 | 2·26 | 5·09 | 4·65 | 8·09 | 14·12 | 5·72 | 45·38 |

No. 380. UDAYARPALAIYAM

Latitude N. 11° 11′. Longitude E. 79° 20′. Elevation 150 feet.

Administration : MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1865 | ... | ... | ... | ... | 4·38 | ... | 6·17 | 3·11 | 8·85 | 16·06 | 6·85 | 4·05 | 49·47 |
| 1866 | ... | ... | ... | 1·52 | 9·30 | ... | 0·62 | 3·39 | 2·46 | 5·92 | 2·24 | 9·29 | 34·74 |
| 1867 | ... | ... | ... | ... | 0·62 | ... | 0·75 | 4·88 | 2·19 | 10·37 | 2·00 | 0·94 | 21·75 |

UDAYARPALAIYAM—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | 5·75 | 1·00 | ... | ... | 3·25 | 2·86 | 3·98 | 5·16 | 4·18 | 6·75 | ... | ... | 32·93 |
| 1869 | 0·62 | 1·04 | 0·18 | 3·50 | 1·80 | ... | 0·25 | 2 86 | 6·28 | 6·90 | 13·40 | 3·60 | 40·43 |
| 1870 | 1·00 | ... | ... | 0·50 | ... | 4·90 | 3·00 | 6·20 | 2·70 | 6·70 | 7 70 | 5·20 | 37·90 |
| 1871 | 1·40 | 0·70 | ... | ... | 5·00 | ... | 1·10 | 3·70 | 6·40 | 11·40 | 8·80 | 2·40 | 40·90 |
| 1872 | ... | ... | ... | ... | 8·20 | 1·10 | 10·70 | 8·80 | 4·10 | 10·20 | 14·90 | 5·90 | 63·90 |
| 1873 | ... | 4·00 | ... | 3·30 | 2·10 | ... | 1·00 | 1·60 | 3·75 | 9·05 | 4·00 | 3·50 | 32·30 |
| 1874 | ... | 0·10 | 0·05 | ... | 3·60 | 6·10 | 3·05 | 3·85 | 3·55 | 6·05 | 7·49 | 4·35 | 39·69 |
| 1875 | 0·60 | ... | ... | 2·60 | 1·80 | 0·30 | 2·45 | 2·05 | 5·90 | 5·70 | 3·45 | 1·60 | 27·35 |
| 1876 | ... | ... | ... | 1·00 | 4·05 | 2·90 | 4·30 | 8·85 | 3·30 | 0·40 | 4·55 | 0·80 | 30·15 |
| 1877 | ... | ... | ... | 0·25 | 3·58 | 1·95 | 1·15 | 1 87 | 4·65 | 7·80 | 5·45 | 7·10 | 33·80 |
| 1878 | 3·00 | ... | ... | 0·37 | 4·15 | 0·85 | 4·95 | 6·95 | 5·70 | 3·00 | 5·25 | 0·80 | 35·02 |
| 1879 | 0·60 | ... | 1·75 | 0·10 | 2·30 | 2·35 | 4·93 | 2·50 | 7·70 | 3·25 | 1·08 | 1·48 | 28·04 |
| 1880 | 0·35 | 0·30 | ... | 0·40 | 1·90 | 2·45 | 1·20 | 12·15 | 4·60 | 8·00 | 22·05 | 5·85 | 59·25 |
| 1881 | 0·23 | ... | ... | ... | 0·73 | 2·25 | 0·20 | 9·08 | 5 83 | 1·20 | 8·55 | 10·85 | 38·92 |
| 1882 | 2·50 | ... | ... | 1·45 | 4·55 | 1·00 | 1·80 | 0·25 | 2·25 | 7·10 | 12·73 | 0·95 | 40·58 |
| 1883 | ... | ... | ... | ... | ... | 4·35 | 2·25 | 1·80 | 4·00 | 11·55 | 7·05 | 4·20 | 35·80 |
| Mean | **0·84** | **0·38** | **0·10** | **0·79** | **3·23** | **1·76** | **2·88** | **5·05** | **4·65** | **7·26** | **7·27** | **3·83** | **38·04** |
| 1884 | 0·40 | ... | ... | ... | 0·70 | ... | 0·78 | 2·80 | 3·33 | 13·20 | 18·30 | 7·98 | 47·49 |
| 1885 | ... | ... | ... | ... | 2·00 | 0·50 | ... | 0·60 | 3·00 | 4·80 | 8·86 | 8·98 | 30·74 |
| 1886 | 1·48 | ... | 1·35 | ... | 6·35 | 3·15 | 3·53 | 6·35 | 4·50 | 2·75 | 3·03 | 1·85 | 34·34 |
| Mean | **0·82** | **0·32** | **0·15** | **0·68** | **3·20** | **1·68** | **2·68** | **4·90** | **4·51** | **7·22** | **7·65** | **4·17** | **37·98** |

No. 381. SHEVAROY HILLS (YERCAND).

Latitude N. 11° 52′. Longitude E. 78° 13′. Elevation 4,500 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ? | ? | ? | ? | 2·70 | 2·30 | 6·60 | 8·60 | 9·00 | 13·80 | 6·10 | ... | ? |
| 1864 | ... | ... | ... | 4·40 | 5·60 | 5·00 | 3·90 | 10·30 | 7·90 | 14·50 | 5·60 | 1·90 | 59·10 |
| 1865 | ... | ... | ... | 4·41 | 8·30 | 6·20 | 12·90 | 8·80 | 11·20 | 7·70 | 4·70 | 0·30 | 64·51 |
| 1866 | ... | ... | ... | 3·50 | 4·90 | 3·80 | ... | 9·60 | 10·80 | 10·70 | 2·70 | 12·50 | 58·50 |
| 1867 | ... | ... | ... | 0·20 | 4·70 | 2·40 | 6·20 | 7·10 | 3·80 | 14·60 | 2·50 | ... | 41.50 |
| 1868 | 3·20 | ... | ... | 1·20 | 4·10 | 11·90 | 27·40 | 0·50 | 5·40 | 7·30 | 10·00 | ... | 71·00 |
| 1869 | ... | 0·30 | 0·60 | 6·80 | 7·00 | 6·50 | 10·40 | 21·00 | 8·30 | 15·60 | 4·00 | 2·00 | 82·50 |
| 1870 | 0·70 | ... | 1·50 | 1·40 | 4·85 | 11·20 | 7·00 | 8·30 | 7·60 | 12·25 | 5·70 | 1·80 | 62·38 |
| 1871 | 0·20 | 0·45 | 1·18 | 2·80 | 5·40 | 1·70 | 12·75 | 6·50 | 9·30 | 5·50 | 7·00 | 1·40 | 54·18 |
| 1872 | ... | ... | ... | 1·90 | 14·10 | 1·30 | 4·10 | 19·50 | 10·40 | 8·30 | 8·90 | 22·00 | 90·50 |
| 1873 | ... | 2·15 | ... | 3·65 | 1·00 | 5·10 | 3·30 | 7·40 | 9·70 | 11·70 | 0·60 | 1·30 | 45·90 |
| 1874 | ... | ... | 0·30 | 1·50 | 17·00 | 1·30 | 5·70 | 9·20 | 14·40 | 10·40 | 2·20 | 0·05 | 62·05 |
| 1875 | ... | ... | 1·10 | 1·90 | 7·50 | 5·60 | 3·00 | 11·00 | 6·20 | 13·50 | 3·00 | ... | 52·80 |
| 1876 | ... | ... | 1·80 | 1·20 | 6·00 | 0·80 | 9·60 | 7·95 | 5·70 | ... | 1·50 | ... | 34·55 |
| 1877 | ... | ... | 3·20 | 0·95 | 3·70 | 7·90 | 2·00 | 1·80 | 15·22 | 24·25 | 5·20 | 5·15 | 69·37 |
| 1878 | ... | ... | 1·60 | 4·10 | 4·65 | 4·90 | 9·00 | 14·97 | 11·20 | 11·10 | 3·60 | 0·10 | 65·22 |
| 1879 | 3·00 | ... | 1·65 | 2·90 | 4·60 | 5·35 | 16·40 | 7·60 | 8·95 | 5·50 | 1·75 | ... | 57·70 |

SHEVAROY HILLS (YERCAND)—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1880 | ... | 0·80 | ... | 4·65 | 5·70 | 2·43 | 3·95 | 8·80 | 3·15 | 11·80 | 14·35 | 2·10 | 57·73 |
| 1881 | ... | ... | 0·05 | 0·50 | 3·20 | 5·30 | 4·70 | 12·50 | 11·05 | 1·50 | 10·40 | 2·45 | 51·65 |
| 1882 | 1·20 | ... | 0·45 | 3·35 | 11·28 | 3·65 | 7·70 | 14·10 | 5·48 | 4·70 | 15·20 | 0·80 | 67·91 |
| 1883 | .... | ... | 1·95 | 0·80 | 6·70 | 5·05 | 5·00 | 16·20 | 3·85 | 13·95 | 11·65 | 5·15 | 70·30 |
| Mean | 0·42 | 0·19 | 0·77 | 2·61 | 6·33 | 4·75 | 7·70 | 10·08 | 8·50 | 10·41 | 6·03 | 2·81 | 60·60 |
| 1884 | ... | ... | 0·30 | 1·00 | 6·90 | 5·45 | 3·67 | 11·35 | 4·75 | 12·50 | 8·45 | 11·25 | 65·62 |
| 1885 | ... | ... | 0·20 | 0·70 | 7·50 | 14·80 | 3·50 | 6·10 | 11·70 | 19·40 | 5·20 | 13·00 | 82·10 |
| 1886 | 0·60 | ... | 2·60 | ... | 9·65 | 9·90 | 10·90 | 22·75 | 10·40 | 9·35 | 3·65 | 1·40 | 81·20 |
| Mean | 0·39 | 0·16 | 0·80 | 2·34 | 6·54 | 5·41 | 7·49 | 10·50 | 8·56 | 10·83 | 6·00 | 3·53 | 62·55 |

No. 382. SALEM.

Latitude N. 11° 39′. Longitude E. 78° 12′. Elevation 940 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1852 | ... | ... | 1·70 | 2·12 | 2·00 | 7·10 | 7·10 | 6·40 | 8·15 | 7·30 | 3·50 | ... | 45·37 |
| 1853 | 1·17 | ... | 5·20 | 1·15 | 4·19 | 1·10 | 0·19 | 7·90 | 7·12 | 6·70 | 1·14 | ... | 35·86 |
| 1854 | ... | ... | ... | 3·10 | ... | 9·00 | ? | ? | 6·00 | ? | 2·30 | 0·25 | ? |
| 1855 to 1862 | Not on record. | | | | | | | | | | | | |
| 1863 | ... | ... | 5·30 | 0·10 | 3·20 | 1·40 | 2·80 | 2·30 | 4·10 | 7·10 | 1·70 | 2·10 | 30·10 |
| 1864 | ... | ... | ... | 0·70 | 1·60 | 1·30 | 0·20 | 5·60 | 4·20 | 7·70 | 1·10 | ... | 22·40 |
| 1865 | ... | ... | ... | 11·30 | 10·20 | 5·40 | 10·90 | 3·70 | 3·40 | 4·50 | 0·50 | 0·50 | 50·40 |
| 1866 | ... | ... | 0·10 | 1·50 | 0·50 | 1·60 | 0·40 | 1·70 | 4·40 | 11·50 | .... | 0·80 | 22·50 |
| 1867 | ... | ... | ... | 1·80 | 4·30 | 0·50 | 4·40 | 3·20 | 4·90 | 10·00 | ... | ... | 29·10 |
| 1868 | 3·60 | ... | ... | 0·50 | 3·40 | 4·90 | 9·10 | 1·50 | 3·00 | 2·80 | 0·60 | ... | 29·40 |
| 1869 | ... | ... | ... | 1·80 | 3·90 | 0·60 | 2·00 | 3·80 | 9·50 | 6·50 | 2·90 | ... | 31·00 |
| 1870 | ... | ... | 0·15 | 1·00 | 3·15 | 3·40 | 3·10 | 6·60 | 10·90 | 7·98 | 1·90 | 1·50 | 39·68 |
| 1871 | ... | 0·40 | ... | 3·40 | 2·40 | ... | 5·80 | 2·55 | 7·50 | 4·80 | 3·30 | ... | 30·15 |
| 1872 | ... | ... | ... | 1·40 | 11·30 | 2·95 | 2·30 | 6·35 | 6·10 | 3·80 | 5·55 | 2·20 | 41·95 |
| 1873 | ... | 0·85 | ... | 2·10 | 1·40 | 1·85 | 2·80 | 7·00 | 4·85 | 11·00 | 0·40 | ... | 32·25 |
| 1874 | ... | ... | ... | 0·50 | 10·85 | 2·60 | 2·58 | 5·60 | 4·90 | 5·65 | 2·80 | ... | 35·48 |
| 1875 | ... | ... | 1·15 | 6·25 | 2·80 | 2·00 | 4·05 | 3·10 | 4·55 | 13·95 | 0·12 | ... | 37·97 |
| 1876 | ... | ... | 0·90 | 0·95 | 6·20 | 2·00 | 4·67 | 4·77 | 6·50 | 0·05 | 0·30 | 0·15 | 26·49 |
| 1877 | ... | ... | 2·70 | 0·05 | 3·76 | 5·95 | 0·55 | 3·26 | 9·80 | 12·00 | 2·25 | 2·20 | 42·52 |
| 1878 | ... | ... | 0·10 | 3·60 | 4·90 | 7·45 | 2·16 | 5·10 | 2·90 | 3·70 | 3·15 | 0·55 | 33·61 |
| 1879 | 3·20 | ... | 1·35 | 1·00 | 2·70 | 1·05 | 11·85 | 5·60 | 10·45 | 5·10 | 0·35 | ... | 42·65 |
| 1880 | ... | 0·65 | ... | 3·42 | 7·55 | 3·58 | 2·27 | 8·49 | 2·67 | 10·55 | 9·33 | 2·38 | 50·89 |
| 1881 | ... | ... | ... | ... | 5·25 | 3·50 | 2·53 | 15·86 | 9·49 | 2·97 | 6·45 | 1·03 | 47·08 |
| 1882 | 0·93 | ... | 2·17 | 2·78 | 8·33 | 1·58 | 4·37 | 13·46 | 8·67 | 7·98 | 9·68 | 0·41 | 60·36 |
| 1883 | ... | ... | 1·16 | 0·70 | 4·80 | 4·32 | 4·59 | 9·05 | 1·89 | 12·44 | 4·36 | 2·67 | 45·98 |
| Mean | 0·37 | 0·08 | 0·92 | 2·13 | 4·53 | 3·13 | 3·94 | 5·78 | 6·08 | 7·22 | 2·65 | 0·70 | 37·53 |

SALEM—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 0·20 | ... | 3·18 | 0·50 | 5·97 | 1·97 | 2·59 | 7·98 | 1·89 | 6·46 | 2·56 | 6·09 | 39·39 |
| 1885 | ... | ... | 0·14 | 0 61 | 3·55 | 5·57 | 0·53 | 4·56 | 12·33 | 16·52 | 1·38 | 2·11 | 47·30 |
| 1886 | ... | ... | 0·60 | 0·09 | 10·14 | 2·38 | 3·42 | 8·35 | 7·28 | 5·08 | 1·29 | 0·46 | 39·09 |
| Mean | 0·34 | 0·07 | 0·96 | 1·94 | 4·75 | 3·15 | 3·74 | 5·91 | 6·20 | 7·47 | 2·55 | 0·94 | 38·02 |

No. 383. KOLLEGAL.

Latitude N. 12° 9′. Longitude E. 77° 9′. Elevation 2,500 feet.

Administration: MADRAS. Rainfall Province No. XX.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ... | ... | ... | 1·00 | 3·00 | 3·60 | 3·47 | 8·45 | 4·90 | 6·40 | ... | ... | 30·82 |
| 1871. | 0·05 | ... | 2·05 | 0·39 | 8·40 | ... | 2·20 | 5·00 | 5·60 | 9·60 | 3·02 | ... | 36·31 |
| 1872 | ... | 0·80 | ... | 0·30 | 5·20 | 5·40 | 4·20 | 8·00 | 6·68 | 4·71 | 2·19 | 1·10 | 38·49 |
| 1873 | ... | ... | ... | 7·30 | 3·90 | 0·14 | ... | 6·00 | 5·10 | 12·84 | 0·04 | 0·50 | 35·82 |
| 1874 | ... | ... | ... | 0·70 | 6·90 | 1·40 | 3·67 | 3·80 | 6·80 | 11·71 | 3·00 | ... | 37·98 |
| 1875 | ... | ... | 0·50 | 0·90 | 4·70 | 3·04 | 0·50 | 2·07 | 5·66 | 7·91 | 0·40 | ... | 25·68 |
| 1876 | ... | ... | 2·05 | 0·95 | 7·54 | 0·76 | 2·43 | 9·37 | 7·32 | 1·55 | ... | ... | 31·97 |
| 1877 | .... | ... | 1·70 | 1·75 | 6·10 | 1·75 | 0·48 | ... | 11·12 | 12·90 | 2·22 | 1·20 | 39·22 |
| 1878 | ... | ... | 0·10 | 1·00 | 5·72 | 2·55 | 4·90 | 5·29 | 7·20 | 12·52 | 1·67 | 0·04 | 40·99 |
| 1879 | 0·65 | 0·05 | 0·95 | 1·40 | 3·35 | 0·35 | 7·92 | 0·90 | 8·83 | 9·32 | 2·07 | ... | 35·79 |
| 1880 | 0·40 | ... | 0·84 | 2·25 | 9·70 | 1·75 | 1·70 | 9·16 | 3·60 | 12·19 | 5·30 | 0·30 | 47·19 |
| 1881 | ... | ... | 0·20 | 2·70 | 6·30 | 1·10 | 0·20 | 3·95 | 7·50 | 0·20 | 4·50 | 0·20 | 26·85 |
| 1882 | 2·70 | ... | ... | 0·07 | 7·30 | 1·92 | 3·02 | 7·90 | 5·03 | 6·50 | 7·50 | ... | 41·94 |
| 1883 | ... | ... | 0·95 | 2·30 | 7·00 | 0·80 | 2·00 | 8·15 | 1·30 | 9·20 | 2·30 | 5·00 | 39·00 |
| Mean | 0·27 | 0·06 | 0·67 | 1·64 | 6·08 | 1·75 | 2·62 | 5·57 | 6·19 | 8·40 | 2·44 | 0·60 | 36·29 |
| 1884 | ... | ... | 0·20 | 1·10 | 4·40 | 3·15 | 0·58 | 3·36 | 2·88 | 4·57 | 2·67 | 1·10 | 24·01 |
| 1885 | ... | ... | 1·00 | ... | 4·50 | 3·50 | ... | 0·90 | 3·90 | 12·65 | 1·45 | 3·20 | 31·10 |
| 1886 | ... | ... | 0·50 | 0·30 | 9·60 | 2·80 | 6·50 | 9·02 | 8·40 | 2·90 | 1·90 | ... | 41·92 |
| Mean | 0·22 | 0·05 | 0·65 | 1·44 | 6·09 | 2·00 | 2·57 | 5·37 | 5·99 | 8·10 | 2·36 | 0·74 | 35·58 |

No. 384. KUMBAKONAM.

Latitude N. 10° 57′. Longitude E. 79° 25′. Elevation 40 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ? | ? | 6·80 | 1·85 | 0·70 | 2·40 | 1·20 | 3·40 | 0·90 | 6·60 | 8·40 | 7·20 | 39·45? |
| 1864 | ... | ... | ... | 0·80 | 1·90 | 0·80 | 1·80 | 5·00 | 2·85 | 20·63 | 5·22 | 3·48 | 42·48 |
| 1865 | 0·70 | ... | ... | 1·50 | 0·40 | ... | 11·70 | 2·35 | 3·22 | 9·55 | 4·35 | 1·40 | 35·17 |
| 1866 | ... | ... | ... | ... | ... | 3·40 | 1·16 | 3·85 | 6·60 | 6·30 | 6·62 | 14·09 | 42·02 |

KUMBAKONAM—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1867 | ... | ... | ... | 0·03 | 1·38 | ... | 1·03 | 1·90 | 2·33 | 7·89 | 0·40 | 0·40 | 15·36 |
| 1868 | 1·20 | 0·08 | ... | ... | 0·07 | 1·07 | 2·15 | 0·12 | 1·00 | 6·28 | 0·16 | 0·16 | 12·29 |
| 1869 | 1·08 | ... | ... | 0·21 | 0·08 | ... | 2·23 | 2·00 | 14·05 | 12·15 | 16·55 | 7·15 | 55·50 |
| 1870 | 2·11 | ... | ... | 0·50 | ... | 7·80 | 1·35 | 14·80 | 6·30 | 8·15 | 2·44 | 7·30 | 50·75 |
| 1871 | 3·20 | 1·45 | 0·03 | 1·35 | 5·30 | 2·46 | 1·10 | 3·05 | 11·15 | 11·80 | 19·05 | 3·90 | 63·84 |
| 1872 | 0·30 | ... | ... | ... | 4·20 | 3·65 | 9·10 | 6·30 | 1·30 | 6·89 | 14·70 | 7·07 | 53·51 |
| 1873 | ... | 5·77 | ... | 5·45 | 1·40 | 0·55 | 1·20 | 1·37 | 1·85 | 15·72 | 2·37 | 3·17 | 38·85 |
| 1874 | ... | 2·70 | 0·70 | 0·90 | 2·03 | 5·13 | 3·94 | 3·55 | 6·82 | 9·03 | 10·20 | 4·42 | 49·42 |
| 1875 | ... | ... | ... | 1·25 | 3·39 | 0·25 | 1·35 | 1·57 | 3·77 | 3·55 | 5·55 | 2·00 | 22·68 |
| 1876 | ... | ... | 0·50 | ... | 4·00 | 0·55 | 0·50 | 8·00 | 2·40 | 0·65 | 4·95 | 2·55 | 24·10 |
| 1877 | ... | ... | ... | ... | 2·80 | 1·50 | 1·40 | 0·95 | 6·00 | 8·85 | 13·95 | 11·85 | 47·30 |
| 1878 | 2·55 | ... | ... | ... | 1·20 | 1·30 | 1·85 | 5·70 | 3·60 | 1·95 | 5·20 | 0·45 | 23·80 |
| 1879 | 0·50 | ... | 1·90 | 0·55 | 2·50 | 3·85 | 6·25 | 7·20 | 6·30 | 8·30 | 3·23 | 4·50 | 45·08 |
| 1880 | 0·65 | 0·60 | ... | 0·70 | ... | 2·68 | 1·00 | 5·80 | 6·63 | 8·98 | 25·97 | 6·62 | 59·63 |
| 1881 | 1·65 | ... | ... | ... | 1·30 | 1·55 | ... | 4·05 | 5·03 | 0·85 | 5·82 | 17·85 | 38·10 |
| 1882 | 0·75 | ... | ... | 0·50 | 6·02 | 0·50 | ... | 9·04 | 1·72 | 11·98 | 15·18 | 2·84 | 48·53 |
| 1883 | ... | 0·42 | ... | ... | 0·55 | 3·10 | 0·20 | 1·96 | 1·90 | 7·28 | 10·92 | 2·44 | 28·77 |
| Mean | **0·73** | **0·55** | **0·47** | **0·74** | **1·87** | **2·03** | **2·41** | **4·38** | **4·56** | **8·26** | **8·63** | **5·28** | **39·91** |
| 1884 | ... | ... | ... | ... | ... | 1·15 | 1·18 | 5·20 | 1·65 | 12·00 | 17·40 | 7·50 | 46·08 |
| 1885 | ... | ... | ... | ... | 1·30 | 0·80 | 1·20 | 3·13 | 4·35 | 8·95 | 9·28 | 8·25 | 37·26 |
| 1886 | 0·80 | ... | ... | ... | 8·05 | 4·53 | 8·50 | 15·05 | 5·45 | 3·90 | 4·60 | 1·49 | 52·28 |
| Mean | **0·67** | **0·48** | **0·41** | **0·65** | **2·02** | **2·04** | **2·56** | **4·81** | **4·47** | **8·26** | **8·85** | **5·33** | **40·55** |

No. 385. TRANQUEBAR.

Latitude N. 11° 2′. Longitude E. 79° 54′. Elevation 20 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ? | ? | 0·20 | 8·90 | 1·10 | 1·50 | 6·70 | 3·90 | 2·55 | 28·30 | 19·90 | 32·50 | 105·55? |
| 1864 | ... | ... | ... | 1·20 | ... | 0·70 | 3·00 | 3·05 | 1·80 | 13·65 | 3·44 | 2·79 | 29·63 |
| 1865 | 1·67 | ... | ... | 1·17 | 0·70 | 0·15 | ... | 1·75 | 6·10 | 2·86 | 14·87 | 1·36 | 30·63 |
| 1866 | Untrustworthy. | | | | | | | | | | | | |
| 1867 | ... | ... | ... | ... | 3·00 | ... | 0·15 | 5·30 | 6·90 | 3·60 | 14·71 | 5·55 | 39·21 |
| 1868 | 2·60 | ... | ... | ... | 0·75 | 7·15 | 5·20 | 6·00 | 8·00 | 13·50 | 12·00 | 12·00 | 67·20 |
| 1869 | 2·55 | 1·50 | ... | 3·00 | 0·40 | 1·55 | 2·95 | 2·05 | 7·85 | 4·10 | 13·10 | 9·95 | 49·00 |
| 1870 | 2·55 | ... | ... | ... | ... | 1·55 | 1·10 | 7·05 | 0·85 | 7·30 | 12·15 | 13·70 | 46·25 |
| 1871 | 1·55 | ... | ... | ... | 1·50 | ... | 1·45 | 3·05 | 2·60 | 10·15 | 19·00 | 2·40 | 41·70 |
| 1872 | ... | ... | ... | ... | 7·15 | 0·30 | 2·00 | 5·70 | 0·75 | 5·35 | 24·05 | 7·90 | 53·20 |
| 1873 | ... | 3·35 | ... | 9·50 | 1·70 | ... | 0·20 | 1·05 | 1·25 | 11·55 | 8·05 | 2·80 | 39·45 |
| 1874 | 0·20 | 0·85 | ... | 0·05 | 1·10 | 1·30 | 5·75 | 1·95 | 5·85 | 7·90 | 9·90 | 12·35 | 47·20 |
| 1875 | ... | ... | ... | 0·90 | 0·55 | 1·00 | 1·40 | 2·95 | 1·15 | 17·82 | 11·97 | 3·49 | 41·23 |
| 1876 | ... | ... | ... | ... | 2·55 | 1·15 | 0·38 | 9·03 | 0·25 | 3·48 | 12·40 | 5·85 | 35·09 |

TRANQUEBAR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1877 | ... | ... | ... | ... | 6·45 | 0·85 | 3·97 | 2·60 | 3·90 | 5·23 | 25·27 | 17·12 | 65·39 |
| 1878 | 7·40 | ... | ... | ... | 1·17 | 0·50 | 1·15 | 3·96 | 5·45 | 5·00 | 9·32 | 3·26 | 37·21 |
| 1879 | 0·23 | ... | 1·53 | ... | 1·80 | 1·12 | 3·17 | 4·47 | 6·15 | 13·70 | 14·00 | 22·83 | 69·00 |
| 1880 | 0·62 | 2·22 | ... | 0·45 | ... | 1·00 | 1·10 | 4·52 | 2·41 | 5·56 | 23·30 | 6·77 | 47·95 |
| 1881 | 2·56 | ... | ... | ... | ... | 0·50 | ... | 3·51 | 9·99 | 3·50 | 10·70 | 21·00 | 51·76 |
| 1882 | 0·85 | ... | ... | ... | 1·50 | 0·76 | 0·90 | 5·82 | 0·59 | 3·89 | 22·32 | 6·66 | 43·29 |
| 1883 | 0·10 | ... | ... | ... | 0·35 | 1·65 | 0·35 | 1·90 | 0·99 | 18·07 | 11·70 | 7·24 | 42·35 |
| Mean | 1·20 | 0·42 | 0·09 | 1·26 | 1·59 | 1·14 | 2·05 | 3·98 | 3·77 | 9·23 | 14·61 | 9·88 | 49·22 |
| 1884 | 0·75 | ... | ... | ... | ... | 2·05 | 0·70 | 2·95 | 0·45 | 18·29 | 36·51 | 21·23 | 82·93 |
| 1885 | ... | ... | ... | ... | 1·85 | 0·90 | 0·95 | 1·25 | 1·50 | 11·55 | 19·75 | 7·70 | 45·45 |
| 1886 | 3·10 | 0·30 | ... | ... | 4·25 | 4·10 | 5·75 | 8·25 | 4·25 | 7·25 | 14·35 | 4·10 | 55·70 |
| Mean | 1·22 | 0·37 | 0·08 | 1·09 | 1·65 | 1·29 | 2·10 | 4·00 | 3·55 | 9·64 | 15·77 | 10·02 | 50·78 |

No. 386. NEGAPATAM.

Latitude N. 10° 46′. Longitude E. 79° 53′. Elevation 15 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ? | ? | 0·10 | 3·85 | 0·33 | 0·35 | 0·86 | 2·74 | 2·60 | 9·52 | 13·02 | 12·56 | 45·93 ? |
| 1864 | ... | ... | ... | 0·85 | 1·65 | ... | 2·90 | 2·00 | 2·68 | 16·20 | 3·72 | 1·77 | 31·77 |
| 1865 | 1·92 | ... | ... | 2·60 | 1·75 | ... | 2·15 | 1·30 | 2·67 | 9·72 | 7·77 | 0·52 | 30·40 |
| 1866 | ... | ... | ... | ... | ... | ... | 0·17 | 1·80 | 3·30 | 11·40 | 12·05 | 21·00 | 49·72 |
| 1867 | 0·50 | ... | ... | ... | 3·40 | ... | 0·03 | 0·30 | 0·44 | 0·31 | 10·62 | 1·05 | 16·65 |
| 1868 | 0·65 | ... | ... | ... | ... | 2·47 | 1·40 | 1·60 | 6·20 | 9·10 | 3·56 | 9·03 | 34·01 |
| 1869 | 2·70 | 0·15 | ... | 1·75 | 0·10 | 0·05 | 0·05 | 4·45 | 6·80 | 4·20 | 23·30 | 14·40 | 57·95 |
| 1870 | ... | ... | ... | ... | ... | 6·11 | 1·41 | 3·20 | 1·42 | 5·15 | 14·26 | 16·68 | 48·23 |
| 1871 | 5·04 | 0·70 | 1·16 | 0·90 | 1·88 | 0·17 | 2·13 | 2·84 | 6·25 | 8·16 | 18·46 | 4·66 | 52·35 |
| 1872 | 1·25 | 0·07 | ... | 2·68 | 12·40 | 0·51 | 5·42 | 2·75 | 3·22 | 4·53 | 20·87 | 4·76 | 58·46 |
| 1873 | ... | 7·09 | ... | 8·17 | 1·93 | 0·82 | 0·13 | 3·95 | 2·52 | 15·79 | 14·82 | 4·68 | 59·90 |
| 1874 | 0·19 | 5·80 | ... | 0·04 | 0·52 | 3·35 | 2·15 | 2·03 | 6·26 | 7·47 | 16·72 | 11·34 | 55·87 |
| 1875 | ... | 0·03 | ... | 0·16 | 1·97 | 0·82 | 0·44 | 6·87 | 4·82 | 7·00 | 14·32 | 4·21 | 40·64 |
| 1876 | ... | ... | 0·05 | 0·29 | 1·55 | 0·51 | 0·39 | 3·91 | 0·16 | 2·57 | 11·09 | 9·59 | 30·11 |
| 1877 | 0·67 | ... | ... | ... | 4·41 | 0·90 | 0·19 | 0·36 | 5·47 | 5·65 | 15·35 | 16·82 | 49·82 |
| 1878 | 2·75 | ... | ... | 0·86 | 0·84 | 0·15 | 1·10 | 3·12 | 10·65 | 9·65 | 6·43 | 4·45 | 40·00 |
| 1879 | 0·12 | ... | 1·35 | ... | 1·17 | 1·20 | 2·65 | 7·11 | 5·29 | 10·91 | 7·02 | 19·61 | 56·43 |
| 1880 | 0·41 | 1·59 | ... | 0·49 | ... | 0·25 | 1·81 | 4·67 | 1·19 | 6·29 | 33·13 | 6·07 | 55·90 |
| 1881 | 5·37 | ... | ... | ... | 0·23 | 1·03 | 0·40 | 3·09 | 4·49 | 4·39 | 12·26 | 27·41 | 58·67 |
| 1882 | 1·41 | ... | ... | 0·02 | 2·85 | 1·92 | 0·62 | 5·17 | 2·41 | 3·98 | 14·27 | 9·85 | 42·50 |
| 1883 | 0·64 | 0·88 | ... | ... | 0·52 | 4·20 | 0·35 | 6·62 | 1·76 | 15·09 | 17·80 | 6·26 | 54·12 |
| Mean | 1·18 | 0·82 | 0·13 | 1·08 | 1·79 | 1·18 | 1·27 | 3·33 | 3·84 | 7·96 | 13·85 | 9·84 | 46·27 |

NEGAPATAM—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 1·04 | ... | ... | ... | 1·20 | 0·04 | 0·40 | 1·03 | 2·19 | 20·15 | 36·85 | 23·57 | 86·47 |
| 1885 | ... | ... | ... | ... | 0·20 | 4·74 | 0·56 | 0·55 | 1·67 | 11·96 | 26·94 | 10·83 | 57·45 |
| 1886 | 4·12 | 4·39 | 0·34 | ... | 7·83 | 2·55 | 4·23 | 10·34 | 3·94 | 12·20 | 13·72 | 7·66 | 71·32 |
| Mean | 1·25 | 0·90 | 0·13 | 0·94 | 1·95 | 1·34 | 1·33 | 3·41 | 3·68 | 8·81 | 15·35 | 10·37 | 49·46 |

No. 387. TANJORE.

Latitude N. 10° 47′. Longitude E. 79° 10′. Elevation 364 feet.

Administration : MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ? | ? | 6·20 | 3·61 | 0·42 | 0·30 | 2·77 | 1·75 | 2·82 | 73·0 | 4·30 | 7·14 | 36·61 ? |
| 1864 | ... | ... | ... | 0·30 | 2·08 | 0·50 | 4·50 | 4·30 | 1·20 | 12·40 | 1·70 | 0·90 | 27·80 |
| 1865 | 0·10 | ... | ... | 1·40 | 4·65 | 0·10 | 1·80 | 1·80 | 1·90 | 3·35 | 1·40 | 0·75 | 17·25 |
| 1866 | ... | 0·30 | ... | ... | ... | 0·50 | 0·30 | 1·80 | 0·90 | 2·00 | 0·70 | 4·70 | 11·20 |
| 1867 | ... | ... | ... | 0·50 | 1·50 | ... | 1·00 | 1·50 | 1·50 | 0·80 | 0·20 | ... | 7·00 |
| 1868 | 2·80 | ... | ... | ... | 0·32 | 0·05 | 0·55 | 0·10 | 0·16 | 0·67 | 1·55 | 0·60 | 6·80 |
| 1869 | 1·20 | ... | ... | 1·40 | 0·60 | 1·35 | 2·88 | 2·55 | 10·80 | 2·60 | 10·77 | 6·75 | 40·90 |
| 1870 | 1·85 | ... | ... | 0·30 | 0·40 | 2·30 | 1·25 | 9·30 | 4·45 | 8·65 | 4·90 | 4·80 | 38·20 |
| 1871 | 1·90 | 1·30 | ... | 0·95 | 3·55 | 0·75 | 2·30 | 3·00 | 7·35 | 6·65 | 10·95 | 0·90 | 39·60 |
| 1872 | 0·60 | ... | 0·55 | 5·50 | 3·15 | 2·55 | 5·06 | 3·12 | 6·60 | 6·49 | 8·76 | 4·60 | 46·98 |
| 1873 | ... | 4·86 | ... | 2·34 | 1·35 | ... | 2·75 | 4·44 | 3·22 | 16·12 | 2·73 | 0·85 | 38·66 |
| 1874 | ... | 2·30 | 0·05 | 0·20 | 1·05 | 0·60 | 1·50 | 2·80 | 7·05 | 6·65 | 6·15 | 1·85 | 30·20 |
| 1875 | 0·55 | ... | ... | 0·60 | 2·75 | 1·55 | 0·75 | 5·35 | 5·80 | 4·90 | 4·10 | 1·30 | 27·65 |
| 1876 | ... | ... | 0·20 | ... | 2·95 | 1·25 | 0·25 | 6·10 | 3·55 | 0·48 | 2·65 | 6·45 | 23·88 |
| 1877 | ... | ... | ... | ... | 1·95 | 3·15 | 0·87 | 0·22 | 6·08 | 10·22 | 6·42 | 9·55 | 38·46 |
| 1878 | 2·00 | ... | ... | 0·90 | 2·10 | 1·65 | 0·90 | 8·40 | 6·50 | 4·00 | 1·95 | 0·70 | 29·10 |
| 1879 | ... | ... | 3·75 | 0·40 | 0·35 | 1·70 | 4·85 | 6·80 | 6·25 | 7·25 | 2·00 | 1·70 | 35·05 |
| 1880 | 0·35 | 0·07 | ... | 0·70 | 0·45 | 0·10 | 1·05 | 6·70 | 1·60 | 5·95 | 22·25 | 3·80 | 43·02 |
| 1881 | 1·00 | ... | ... | ... | 0·50 | 0·05 | 1·15 | 4·50 | 6·20 | 2·45 | 2·85 | 12·15 | 30·85 |
| 1882 | 2·15 | ... | ... | ... | 2·55 | 2·25 | ... | 5·75 | 2·60 | 1·75 | 12·32 | 5·60 | 34·97 |
| 1883 | ... | 0·80 | ... | ... | 1·70 | 4·95 | 0·90 | 3·42 | 2·07 | 6·86 | 7·63 | 2·92 | 31·25 |
| Mean | 0·73 | 0·48 | 0·51 | 0·91 | 1·63 | 1·22 | 1·78 | 3·99 | 4·22 | 5·60 | 5·54 | 3·71 | 30·32 |
| 1884 | 0·10 | ... | ... | 0·70 | 0·70 | 1·50 | 1·75 | 1·17 | 6·09 | 11·94 | 9·40 | 11·05 | 44·40 |
| 1885 | ... | ... | ... | ... | 0·75 | 2·60 | 0·40 | 0·70 | 3·23 | 10·00 | 8·05 | 6·93 | 32·66 |
| 1886 | 0·90 | 0·15 | ... | 0·35 | 9·60 | 3·00 | 6·45 | 3·40 | 5·65 | 7·40 | 3·94 | 0·86 | 41·70 |
| Mean | 0·67 | 0·43 | 0·45 | 0·84 | 1·89 | 1·36 | 1·92 | 3·71 | 4·32 | 6·12 | 5·74 | 4·04 | 31·49 |

No. 388. PUTUKOTA.

Latitude N. 16° 26'. Longitude E. 79° 22'. Elevation 100 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 3·48 | ... | ... | ... | ... | 7·80 | 1·25 | 6·55 | 4·30 | 4·30 | 7·05 | 5·50 | 40·23 |
| 1871 | 6·00 | 0·90 | 0·50 | 8·10 | 5·50 | 1·20 | 1·50 | 3·40 | 5·50 | 6·65 | 8·70 | 2·50 | 50·45 |
| 1872 | 0·05 | 0·15 | ... | 2·55 | 2·45 | ... | 2·95 | 7·20 | 3·60 | 3·80 | 6·80 | 4·65 | 34·20 |
| 1873 | ... | 6·85 | ... | 0·55 | 4·95 | 8·45 | 0·65 | 6·85 | 1·60 | 11·95 | 6·20 | 0·80 | 48·85 |
| 1874 | ... | 2·95 | ... | 1·25 | 3·00 | 2·50 | 2·40 | 6·60 | 4·75 | 5·25 | 5·10 | 2·90 | 36·70 |
| 1875 | ... | ... | 0·95 | 2·05 | 1·00 | ... | 0·50 | 4·85 | 3·85 | 6·27 | 4·75 | 0·75 | 24·97 |
| 1876 | ... | ... | 1·65 | ... | 2·60 | 0·45 | 0·40 | 4·35 | 0·75 | 3·30 | 5·15 | 8·55 | 27·20 |
| 1877 | ... | ... | ... | ... | 2·50 | 0·40 | 3·45 | 1·15 | 3·45 | 7·00 | 10·85 | 11·90 | 40·70 |
| 1878 | 2·12 | ... | 0·20 | 1·30 | 2·35 | ... | 2·80 | 11·25 | 5·00 | 2·10 | 4·45 | 1·80 | 33·37 |
| 1879 | ... | ... | 0·60 | ... | 0·95 | 1·00 | 4·35 | 8·25 | 3·10 | 5·10 | ... | 1·25 | 24·60 |
| 1880 | 1·49 | 1·70 | ... | 2·05 | 1·57 | 0·12 | 1·30 | 5·67 | 6·50 | 5·07 | 19·63 | 6·30 | 51·40 |
| 1881 | 3·15 | ... | ... | ... | ... | 3·15 | ... | 1·80 | 2·18 | 1·40 | 6·79 | 16·80 | 35·27 |
| 1882 | 1·92 | ... | 0·55 | 0·20 | 3·40 | ... | 1·05 | 9·27 | 4·10 | 4·15 | 11·07 | 6·80 | 42·51 |
| 1883 | ... | 0·80 | ... | ... | 1·10 | 3·60 | 1·25 | 0·95 | ... | 14·65 | 7·60 | 4·30 | 34·25 |
| Mean | 1·30 | 0·95 | 0·32 | 1·29 | 2·24 | 2·05 | 1·70 | 5·58 | 3·48 | 5·79 | 7·44 | 5·34 | 37·48 |
| 1884 | 0·15 | ... | ... | ... | 2·35 | ... | 0·25 | 0·80 | 2·30 | 11·90 | 8·88 | 11·42 | 38·05 |
| 1885 | ... | ... | 1·30 | ... | 0·60 | 0·93 | 0·80 | 3·20 | 0·28 | 9·60 | 13·00 | 4·88 | 34·59 |
| 1886 | 2·70 | 0·70 | ... | ... | 4·80 | 2·70 | 3·75 | 11·00 | 7·07 | 10·87 | 6·40 | 2·95 | 52·94 |
| Mean | 1·24 | 0·83 | 0·34 | 1·06 | 2·30 | 1·90 | 1·69 | 5·48 | 3·43 | 6·67 | 7·79 | 5·53 | 38·26 |

No. 389. TRICHINOPOLY.

Latitude N. 10° 49'. Longitude E. 78° 44'. Elevation 275 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1842 | 5·80 | ... | ? | ? | ? | 4·50 | ... | 1·00 | 11·25 | 6·75 | 3·75 | 0·50 | ? |
| 1843 | 7·00 | ... | ... | 2·25 | 6·25 | 2·00 | ... | 0·75 | ? | 9·50 | 0·50 | 4·75 | ? |
| 1844 | ... | ... | 0·50 | 0·50 | 2·25 | 1·15 | ... | 1·00 | 4·75 | 6·75 | 0·50 | 12·00 | 29·40 |
| 1845 | 0·25 | ... | 1·60 | ... | 3·25 | 0·50 | ... | 0·50 | 3·50 | 3·50 | 0·75 | 3·25 | 17·10 |
| 1846 | ... | 0·50 | ... | ... | 2·60 | 0·25 | 4·00 | 0·50 | 7·80 | 5·00 | 4·15 | 2·45 | 27·25 |
| 1847 | 1·00 | 0·98 | 1·00 | 0·45 | 0·10 | 1·05 | 4·30 | 6·50 | 1·75 | 5·75 | 7·80 | 5·35 | 36·03 |
| 1848 | ... | 0·25 | ... | 5·15 | 1·70 | ... | 9·90 | 3·10 | 8·10 | 2·15 | 1·05 | 3·20 | 34·60 |
| 1849 to 1852 | Not on record. | | | | | | | | | | | | |
| 1853 | 10·75 | 3·50 | ? | 2·50 | 6·00 | ... | ... | 5·75 | 10·25 | 9·75 | ? | ... | ? |
| 1854 | ... | ... | 3·60 | ... | ... | ... | 2·00 | 11·55 | 4·50 | 2·35 | 8·50 | 1·20 | 33·70 |

TRICHINOPOLY—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1855 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | ... | ... | 3·79 | 1·50 | 0·63 | 1·94 | 2·37 | 2·92 | 7·91 | 0·56 | 9·58 | ... | 31·20 |
| 1862 | 1·54 | 2·48 | ... | ... | 4·04 | 2·33 | 4·81 | 2·28 | 7·94 | 3·60 | 6·63 | 2·19 | 37·84 |
| 1863 | ... | 0·90 | 7·40 | 10·20 | 12·30 | 2·00 | 2·20 | 6·80 | 8·00 | 26·00 | 7·40 | 12·10 | 95·30 |
| 1864 | ... | ... | ... | 5·44 | 8·80 | 0·40 | ... | 19·10 | ... | 20·40 | 6·30 | 4·20 | 64.64 |
| 1865 | ... | 1·30 | ... | 5·80 | 10·90 | ... | 6·00 | 3·10 | 10·80 | 13·00 | 9·60 | 1·40 | 61·90 |
| 1866 | ... | ... | ... | ... | 3·00 | 4·60 | ... | 0·69 | 4·94 | 8·12 | 1·05 | 4·70 | 27·01 |
| 1867 | ... | 0·65 | ... | 1·56 | 4·21 | ... | 4·16 | 2·90 | ... | 8·57 | 0·45 | ... | 22·50 |
| 1868 | 3·00 | ... | ... | ... | 7·60 | 2·50 | 4·15 | 1·15 | 6·43 | 12·65 | 0·35 | 1·12 | 38·95 |
| 1869 | 0·50 | ... | ... | 3·00 | 3·55 | 2·00 | 1·35 | 8·75 | 5·79 | 8·40 | 9·67 | 4·87 | 47·88 |
| 1870 | 2·50 | ... | ... | 1·40 | ... | 1·12 | 0·15 | 10·78 | 4·45 | 10·34 | 10·45 | 1·30 | 42·49 |
| 1871 | ... | 2·40 | ... | 0·70 | 5·30 | 1·68 | 1·57 | 2·55 | 4·19 | 6·31 | 7·03 | 2·27 | 34·00 |
| 1872 | ... | ... | 0·05 | 2·10 | 2·79 | 1·79 | 6·77 | 3·06 | 5·30 | 5·93 | 9·88 | 3·75 | 41·42 |
| 1873 | ... | 4·84 | ... | 2·95 | 2·90 | ... | 2·10 | 4·95 | 5·46 | 17·02 | 1·04 | 0·59 | 41·85 |
| 1874 | ... | ... | ... | 5·05 | ... | 1·16 | ... | 2·33 | 5·68 | 5·98 | 8·54 | 1·52 | 30·26 |
| 1875 | 0·05 | ... | ... | 1·97 | 6·34 | 1·93 | 0·02 | 6·16 | 6·02 | 5·43 | 2·15 | 1·02 | 31·09 |
| 1876 | ... | ... | 0·18 | ... | 2·91 | 0·19 | 2·25 | 4·42 | 4·99 | 0·16 | 2·12 | 3·14 | 20·36 |
| 1877 | ... | ... | 0·04 | 0·52 | 2·23 | 0·52 | 0·40 | 0·31 | 10·07 | 13·01 | 5·54 | 5·30 | 37·94 |
| 1878 | 0·23 | ... | ... | 4·09 | 1·48 | 2·88 | 2·42 | 3·52 | 4·92 | 4·68 | 1·96 | 0·37 | 26·55 |
| 1879 | 0·60 | ... | 2·62 | 2·50 | 0·43 | 0·22 | 3·95 | 3·06 | 2·54 | 8·13 | 1·58 | 0·71 | 26·34 |
| 1880 | ... | ... | 0·25 | 1·56 | 1·20 | ... | 0·32 | 7·03 | 2·00 | 5·07 | 13·89 | 3·24 | 34·56 |
| 1881 | 0·25 | ... | 1·07 | ... | 0·97 | 0·02 | 2·66 | 7·40 | 4·99 | 4·41 | 3·41 | 4·04 | 29·22 |
| 1882 | 1·48 | ... | ... | 1·28 | 3·24 | 2·58 | 0·04 | 3·52 | 3·32 | 4·41 | 11·29 | 1·90 | 33·06 |
| 1883 | ... | ... | ... | ... | 3·98 | 2·63 | 1·16 | 4·37 | 4·67 | 7·94 | 5·22 | 0·94 | 30·91 |
| Mean | 1·09 | 0·56 | 0·74 | 2·02 | 3·58 | 1·31 | 2·16 | 4·43 | 5·56 | 7·86 | 5·23 | 2·92 | 37·46 |
| 1884 | 0·31 | ... | ... | ... | 6·49 | 0·36 | 0·12 | 2·34 | 1·60 | 11·28 | 6·69 | 9·72 | 38·91 |
| 1885 | ... | ... | 0·07 | ... | 0·99 | 1·63 | 0·21 | 1·42 | 5·22 | 5·88 | 4·81 | 4·23 | 24·46 |
| 1886 | 0·27 | ... | 1·12 | ... | 12·30 | 0·61 | 6·19 | 7·60 | 1·89 | 3·44 | 4·10 | 0·42 | 37·94 |
| Mean | 1·02 | 0·51 | 0·71 | 1·84 | 3·85 | 1·27 | 2·16 | 4·37 | 5·32 | 7·78 | 5·23 | 3·08 | 37·14 |

No. 390. KARUR.

Latitude N. 10° 58′. Longitude E. 78° 7′. Elevation 380 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ? | ? | 4·53 | 14·43 | 3·86 | ... | ... | 0·29 | 6·74 | 7·75 | 1·47 | 3·74 | 42·81 ? |
| 1864 | ... | ... | ... | 2·59 | 2·75 | 1·75 | ... | 2·43 | 1·30 | 9·10 | 0·26 | ... | 20·18 |
| 1865 | ... | ... | ... | 6·32 | 7·24 | 4·36 | 1·33 | 0·39 | 9·39 | 3·40 | 1·67 | 0·07 | 34·17 |
| 1866 | ... | ... | ... | 0·25 | 4·18 | 1·31 | 0·46 | 1·65 | 0·76 | 4·89 | 1·55 | 3·25 | 18·30 |
| 1867 | ... | ... | ... | 1·42 | ... | 0·50 | 1·45 | 0·98 | 3·00 | 5·63 | ... | ... | 12·98 |

KARUR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | 3·10 | ... | ... | ... | 8·55 | 5·06 | 3·77 | 1·96 | 1·60 | ... | 2·77 | 0·60 | 27·41 |
| 1869 | 0·12 | ... | 0·13 | 0·60 | 2·45 | 0·25 | 0·97 | 4·49 | 1·99 | 4·50 | 2·84 | 3·12 | 21·46 |
| 1870 | 0·75 | ... | ... | 0·03 | ... | 5·11 | 0·40 | 7·75 | 3·36 | 6·20 | 3·56 | 0·55 | 27·71 |
| 1871 | 0·64 | 0·73 | 0·20 | 2·26 | 3·14 | 0·37 | 2·24 | 1·87 | 6·73 | 3·75 | 4·13 | 0·50 | 26·56 |
| 1872 | ... | ... | ... | 1·02 | 7·00 | 5·33 | 2·89 | 4·57 | 5·07 | 2·52 | 7·22 | 3·33 | 38·95 |
| 1873 | ... | 1·02 | ... | 2·80 | 2·85 | ... | 0·67 | 2·16 | 2·40 | 14·84 | ... | 0·03 | 26·77 |
| 1874 | ... | 0·85 | ... | 0·17 | 2·70 | 0·03 | 2·07 | 3·74 | 1·94 | 4·12 | 4·75 | 0·68 | 21·05 |
| 1875 | ... | ... | 0·20 | 0·26 | 4·03 | 1·13 | ... | 3·13 | 1·90 | 10·67 | 0·95 | 0·71 | 22·98 |
| 1876 | ... | ... | 0·65 | 0·09 | 4·41 | 1·40 | 0·50 | 5·09 | 1·55 | 1·76 | 0·83 | 0·75 | 17·03 |
| 1877 | ... | ... | 0·20 | 0·25 | 3·42 | ... | ... | 0·24 | 6·86 | 7·69 | 4·67 | 3·55 | 26·88 |
| 1878 | 0·62 | ... | ... | 2·03 | 6·07 | 0·15 | 4·04 | 6·28 | 4·51 | 8·11 | 1·37 | 1·75 | 34·93 |
| 1879 | ... | 0·05 | 1·50 | 0·35 | 0·80 | 0·76 | 6·44 | 3·42 | 1·53 | 3·20 | 2·95 | 0·03 | 21·03 |
| 1880 | 0·02 | ... | ... | 4·33 | 2·46 | ... | 0·82 | 4·71 | 3·60 | 7·26 | 10·87 | 0·86 | 34·93 |
| 1881 | ... | ... | ... | ... | 3·97 | ... | ... | 3·98 | 6·19 | 0·93 | 2·79 | 1·88 | 19·74 |
| 1882 | 0·55 | ... | ... | 0·82 | 9·35 | 0·15 | 0·23 | 4·82 | 1·96 | 14·74 | 3·25 | 0·82 | 36·69 |
| 1883 | ... | ... | ... | ... | 3·32 | 1·11 | ... | 5·77 | 1·00 | 7·79 | 4·20 | 1·39 | 24·58 |
| Mean | 0·29 | 0·13 | 0·35 | 1·91 | 3·93 | 1·37 | 1·35 | 3·32 | 3·49 | 6·14 | 2·96 | 1·31 | 26·55 |
| 1884 | 0·92 | ... | 1·68 | 0·67 | 5·24 | 0·08 | ... | 0·43 | 0·92 | 9·63 | 5·45 | 5·43 | 30·45 |
| 1885 | ... | ... | ... | ... | 1·44 | 0·98 | ... | 3·15 | 2·66 | 9·43 | 1·28 | 2·03 | 22·97 |
| 1886 | ... | ... | 0·25 | ... | 6·89 | 1·82 | 1·93 | 6·19 | 4·30 | 1·08 | 0·40 | 0·41 | 23·27 |
| Mean | 0·29 | 0·12 | 0·39 | 1·70 | 4·01 | 1·32 | 1·26 | 3·40 | 3·39 | 6·21 | 2·88 | 1·48 | 26·45 |

No. 391. COIMBATORE.

Latitude N. 10° 59′. Longitude E. 77°. Elevation 1,348 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1853 | 2·43 | ... | 1·59 | 4·10 | ... | ... | 0·71 | 2·83 | 0·33 | 8·67 | 1·14 | ? | ? |
| 1854 | ? | ? | 1·25 | 0·28 | ... | ... | ... | ? | ? | ? | ? | ? | ? |
| 1855 to 1862 | Not on record. | | | | | | | | | | | | |
| 1863 | ... | ... | 1·10 | 5·40 | 2·60 | 3·25 | ... | 1·00 | ... | 5·40 | 1·35 | 1·30 | 21·40 |
| 1864 | ... | ... | ... | 2·38 | 3·89 | 1·70 | 2·74 | 0·52 | 0·60 | 4·71 | ... | ... | 16·54 |
| 1865 | ... | ... | ... | 1·30 | 1·00 | ... | 3·06 | ... | 2·45 | 11·47 | 2·85 | ... | 22·13 |
| 1866 | ... | ... | ... | 3·60 | 7·75 | 5·10 | ... | ... | 0·87 | 2·13 | 2·15 | 4·19 | 25·79 |
| 1867 | ... | ... | 0·66 | 0·74 | 3·02 | 0·44 | 1·74 | 0·02 | 0·50 | 4·53 | 0·69 | 0·13 | 12·47 |
| 1868 | 1·29 | ... | 0·94 | 0·35 | 1·43 | 3·77 | 1·06 | 0·69 | 0·91 | 3·29 | 2·42 | ... | 16·15 |
| 1869 | 0·06 | 0·30 | 0·20 | 0·72 | 1·44 | 1·08 | 0·[illegible] | 5·03 | 0·50 | 3·56 | 5·16 | 1·76 | 20·16 |
| 1870 | 0·37 | ... | 1·54 | 0·87 | 0·92 | 1·96 | 1·83 | 0·40 | 3·27 | 3·08 | 2·57 | 0·70 | 17·51 |
| 1871 | 0·40 | 0·15 | 0·46 | 2·26 | 1·82 | 0·82 | 0·66 | ... | 0·80 | 4·39 | 13·68 | 0·10 | 25·54 |
| 1872 | ... | ... | ... | 3·15 | 0·40 | 4·91 | 1·25 | 0·60 | 3·29 | 3·74 | 5·58 | 1·29 | 24·21 |
| 1873 | ... | 1·26 | ... | 2·28 | 3·60 | 1·41 | 1·58 | 2·19 | 1·91 | 7·86 | 0·69 | 0·09 | 22·87 |

COIMBATORE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1874 | ... | 0·35 | 0·17 | 1·80 | 3·04 | 2·32 | 1·82 | 0·49 | 1·24 | 3·29 | 4·16 | 0·42 | 19·10 |
| 1875 | 0·04 | ... | 0·99 | 1·37 | 2·64 | 2·73 | 1·34 | 0·20 | 0·42 | 11·24 | 1·59 | 0·33 | 22·89 |
| 1876 | ... | ... | 1·14 | 2·60 | 4·42 | 0·35 | 2·38 | 3·09 | 1·83 | 1·70 | 1·55 | 0·25 | 19·31 |
| 1877 | ... | ... | 0·56 | 0·55 | 2·42 | 3·68 | 0·03 | 0·57 | 1·94 | 12·99 | 2·50 | 2·15 | 27·39 |
| 1878 | 0·22 | ... | .... | 5·02 | 1·75 | 1·00 | 1·25 | 1·42 | 1·84 | 1·93 | 2·39 | 0·87 | 17·69 |
| 1879 | ... | 1·01 | 2·35 | 0·44 | 3·64 | 0·16 | 3·63 | 0·35 | 0·78 | 4·52 | 1·93 | 0·27 | 19·08 |
| 1880 | 0·04 | 0·01 | ... | 2·42 | 2·45 | 1·72 | 0·30 | 2·65 | 0·93 | 10·41 | 6·12 | 1·90 | 28·95 |
| 1881 | 0·08 | ... | 0·13 | ... | 5·60 | 0·97 | 0·62 | 0·57 | 0·19 | 7·16 | 6·68 | 0·64 | 22·64 |
| 1882 | 1·04 | ... | 0·42 | 2·89 | 3·30 | 2·91 | 3·83 | 1·52 | 2·12 | 4·86 | 3·34 | 1·67 | 27·90 |
| 1883 | ... | ... | 0·63 | 0·17 | 2·10 | 0·86 | 0·76 | 2·98 | 0·24 | 8·77 | 4·66 | 2·27 | 23·44 |
| Mean | 0·27 | 0·14 | 0·61 | 1·94 | 2·58 | 1·79 | 1·35 | 1·23 | 1·23 | 5·90 | 3·33 | 0·97 | 21·34 |
| 1884 | 0·65 | ... | 0·25 | 0·94 | 0·88 | 0·55 | 0·18 | 0·81 | 0·11 | 7·38 | 7·86 | 1·06 | 20·67 |
| 1885 | ... | ... | 0·84 | 0·38 | 2·47 | 4·05 | 0·87 | 0·87 | 1·97 | 4·28 | 0·58 | 3·90 | 20·21 |
| 1886 | 0·08 | ... | .... | 1·25 | 5·59 | 1·30 | 1·29 | 1·31 | 2·31 | 1·39 | 3·12 | 0·23 | 17·87 |
| Mean | 0·27 | 0·12 | 0·59 | 1·82 | 2·62 | 1·81 | 1·28 | 1·20 | 1·25 | 5·71 | 3·39 | 1·06 | 21·12 |

No. 392. DINDIGUL.

Latitude N. 10° 22′. Longitude E. 78° 0′. Elevation 700 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | 0·09 | 0·27 | 1·52 | 3·18 | 1·83 | 3·44 | 0·78 | 1·28 | 0·43 | 14·20 | 3·37 | 4·79 | 35·18 |
| 1864 | ... | ... | ... | 2·38 | 7·03 | 0·88 | 0·34 | 1·03 | 2·94 | 8·17 | 3·83 | 3·42 | 30·02 |
| 1865 | 0·78 | ... | ... | 2·19 | 4·69 | ... | 1·23 | 0·07 | 1·04 | 3·36 | 3·00 | 1·07 | 17·43 |
| 1866 | 0·36 | 0·24 | ... | 0·16 | 2·40 | 0·69 | 1·19 | 0·89 | 6·37 | 8·39 | 0·40 | 2·24 | 23·33 |
| 1867 | 0·03 | ... | ... | 3·04 | 3·61 | ... | 3·53 | 0·98 | 0·12 | 9·86 | 0·61 | 0·12 | 21·90 |
| 1868 | 4·16 | 1·31 | ... | 1·01 | 7·18 | 3·55 | 3·88 | 0·28 | 3·74 | 6·50 | 2·94 | 0·12 | 34·67 |
| 1869 | 0·85 | 0·79 | 0·44 | 2·06 | 1·41 | 1·35 | 1·46 | 5·50 | 2·90 | 6·20 | 7·33 | 3·10 | 33·39 |
| 1870 | 1·93 | .... | ... | 1·65 | 1·40 | 3·30 | 0·15 | 6·78 | 4·48 | 6·13 | 8·88 | 1·61 | 36·31 |
| 1871 | 0·85 | 0·52 | 0·28 | 1·28 | 2·85 | 0·92 | 1·15 | 4·68 | 1·46 | 6·26 | 5·24 | 1·36 | 26·85 |
| 1872 | 0·12 | 1·10 | 0·30 | 0·93 | 0·58 | 4·07 | 2·58 | 1·95 | 6·71 | 4·64 | 9·23 | 3·31 | 35·52 |
| 1873 | ... | 1·88 | ... | 0·76 | 3·30 | 0·83 | 0·63 | 4·17 | 0·37 | 7·75 | 2·12 | 1·50 | 23·31 |
| 1874 | ... | 0·96 | ... | 2·70 | 3·91 | 3·05 | 0·80 | 1·85 | 3·23 | 2·79 | 6·57 | 2·30 | 28·16 |
| 1875 | 0·02 | ... | 0·31 | 6·17 | 3·93 | 1·09 | 1·23 | 1·39 | 1·22 | 14·14 | 3·20 | 1·52 | 34·22 |
| 1876 | ... | ... | 0·30 | 1·55 | 4·55 | 0·27 | 1·25 | 1·53 | 3·24 | 1·15 | 2·34 | 1·23 | 17·41 |
| 1877 | ... | ... | 0·85 | 0·13 | 1·65 | 2·60 | 0·97 | 0·60 | 10·75 | 9·14 | 10·19 | 8·55 | 45·43 |
| 1878 | 0·36 | ... | ... | 0·63 | 3·48 | 1·80 | 4·00 | 2·78 | 3·56 | 1·98 | 2·53 | 0·65 | 21·77 |
| 1879 | ... | 0·06 | 2·18 | 1·63 | 0·89 | 1·10 | 6·08 | 0·69 | 2 25 | 3·81 | 2·11 | 0·30 | 21·10 |
| 1880 | 0·31 | 0·21 | ... | 0·59 | 1·94 | 0·19 | ... | 1·17 | 0·36 | 5·04 | 13·99 | 4·60 | 28·40 |
| 1881 | 0·05 | ... | ... | ... | 3·39 | 0·94 | ... | 3·32 | 2·12 | 1·51 | 6·12 | 2·74 | 20·19 |
| 1882 | 3·87 | ... | 0·10 | 2·94 | 3·22 | 2·47 | 0·70 | 3·80 | 2·11 | 4·19 | 5·37 | 0·45 | 29·22 |
| 1883 | ... | 0·07 | 0·05 | 2·80 | 2·49 | 0·78 | 1·42 | 2·46 | 0·58 | 4·98 | 7·59 | 1·31 | 24·53 |
| Mean | 0·66 | 0·35 | 0·30 | 1·80 | 3·13 | 1·59 | 1·59 | 2·25 | 2·86 | 6·20 | 5·09 | 2·20 | 28·02 |

DINDIGUL—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 0·10 | ... | ... | 0·84 | 1·00 | 1·11 | 0·85 | 1·82 | 2·33 | 8·07 | 7·19 | 6·07 | 29·38 |
| 1885 | ... | ... | ... | 0·40 | 0·78 | 3·63 | 0·05 | 1·00 | 2·05 | 6·39 | 1·81 | 4·88 | 20·99 |
| 1886 | 0·58 | ... | 1·45 | 0·75 | 7·70 | 1·51 | 5·05 | 3·07 | 6·30 | 1·46 | 1·25 | 0·22 | 29·34 |
| Mean | 0·60 | 0·31 | 0·32 | 1·66 | 3·13 | 1·65 | 1·64 | 2·21 | 2·94 | 6·09 | 4·88 | 2·39 | 27·82 |

No. 393. PERIYAKULAM.

Latitude N. 10° 7′. Longitude E. 77° 36′. Elevation 910 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 0·70 | ... | 1·55 | ... | 0·65 | 0·70 | 1·65 | 2·85 | 2·65 | 2·38 | 5·32 | 0·05 | 17·90 |
| 1871 | 5·55 | 0·80 | 3·45 | 1·97 | 1·68 | 0·40 | 0·18 | 0·80 | 2·26 | 4·13 | 5·56 | 0·29 | 27·07 |
| 1872 | ... | 2·50 | ... | 2·00 | 1·65 | 2·20 | 0·60 | 3·25 | 4·16 | 2·52 | P | P | P |
| 1873 | ... | 3·50 | 1·20 | 2·23 | 3·04 | ... | 0·40 | 3·69 | 0·10 | 6·71 | 2·05 | 0·25 | 23·17 |
| 1874 | ... | 1·05 | 0·50 | 3·65 | 1·05 | 3·16 | 0·70 | 1·52 | 1·27 | 10·45 | 8·85 | 1·55 | 33·75 |
| 1875 | 2·50 | ... | ... | 2·65 | 4·65 | 1·17 | 0·01 | 1·36 | 0·55 | 12·15 | 2·61 | ... | 27·05 |
| 1876 | ... | ... | 2·75 | 1·15 | 0·80 | 0·45 | ... | 1·90 | 2·78 | 1·72 | 4·58 | ... | 16·13 |
| 1877 | ... | ... | 6·63 | 5·29 | 3·41 | 3·57 | 0·02 | ... | 9·64 | 14·71 | 5·31 | 6·15 | 54·73 |
| 1878 | 1·05 | ... | ... | 2·48 | 8·13 | 0·82 | 3·30 | 4·35 | 3·00 | 4·60 | 6·40 | 0·67 | 34·80 |
| 1879 | ... | 3·90 | 1·90 | 1·62 | 1·05 | 0·25 | 2·30 | 0·22 | 2·40 | 5·95 | 3·20 | 0·06 | 22 85 |
| 1880 | 0·50 | ... | 1·40 | 2·27 | 2·21 | 1·30 | ... | 0·22 | 1·45 | 5·70 | 4·75 | 2·45 | 22·25 |
| 1881 | ... | ... | 4·80 | 0·20 | 3·05 | 0·02 | ... | 1·00 | 0·40 | 5·63 | 6·00 | 0·60 | 21·70 |
| 1882 | 1·60 | 1·97 | 0·20 | 3·32 | 3·98 | 0·30 | ... | 0·43 | ... | 4·10 | 5·80 | 0·30 | 22·00 |
| 1883 | ... | ... | 0·78 | 3·15 | 4·87 | 0·67 | 0·50 | 4·58 | 2·00 | 5·80 | 9·60 | 1·27 | 33·22 |
| Mean | 0·85 | 0·98 | 1·80 | 2·28 | 2·83 | 1·07 | 0·69 | 1·87 | 2·33 | 6·18 | 5·39 | 1·05 | 27·32 |
| 1884 | 1·60 | ... | 0·85 | 1·60 | 0·75 | ... | ... | 0·85 | 1·50 | 16·99 | 7·75 | 3·40 | 35·29 |
| 1885 | ... | ... | 0·45 | 0·57 | 2·10 | 1·57 | 0·30 | 2·60 | 4·15 | 5·35 | 2·50 | 3·47 | 23·06 |
| 1886 | ... | ... | 2·75 | 2·97 | 5·37 | 1·72 | 1·77 | 3·32 | 3·63 | 3·75 | 1·47 | ... | 20·75 |
| Mean | 0·79 | 0·81 | 1·72 | 2·18 | 2·81 | 1·08 | 0·69 | 1·94 | 2·47 | 6·63 | 5·11 | 1·28 | 27·51 |

No. 394A. MADURA.

Latitude N. 9° 55′. Longitude E. 78° 10′. Elevation 448 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1853 | 8·04 | 0·10 | 1·66 | 4·75 | 3·07 | ... | ... | 13·83 | 19·42 | 17·60 | 4·57 | ... | 73·04 |
| 1854 | 0·09 | 0·06 | 0·20 | 3·55 | 1·30 | 0·35 | 2·70 | 3·15 | 1·50 | 12·20 | 7·05 | 1·00 | 33·15 |

MADURA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1855 to 1862 | Not on record. | | | | | | | | | | | | |
| 1863 | ... | 0·53 | 0·93 | 3·12 | 2·11 | 0·87 | 0·52 | 3·33 | 0·67 | 8·75 | 4·75 | 0·95 | 26·53 |
| 1864 | ... | ... | ... | 1·37 | 1·75 | 2·00 | 0·31 | 4·31 | 3·44 | 5·44 | 10·93 | 4·87 | 34·42 |
| 1865 | 0·50 | ... | ... | 5·88 | 3·60 | ... | 4·15 | 1·00 | 5·75 | 8·65 | 1·15 | 0·50 | 31·18 |
| 1866 | ... | 0·40 | ... | ... | 0·32 | 0·95 | 1·40 | 4·40 | 2·62 | 13·65 | 1·80 | 3·20 | 28·74 |
| 1867 | ... | ... | ... | 2·13 | 3·10 | 0·08 | 2·70 | 7·05 | 4·05 | 5·65 | 0·50 | 0·25 | 25·51 |
| 1868 | 3·00 | 0·70 | ... | 1·10 | 4·80 | 2·55 | 3·75 | 2·35 | 5·45 | 8·85 | 5·35 | ... | 37·90 |
| 1869 | ... | ... | 0·90 | 3·75 | 2·20 | 1·55 | 1·60 | 5·28 | 4·90 | 2·48 | 6·98 | 2·13 | 31·77 |
| 1870 | 0·75 | ... | ... | 0·93 | 0·95 | 1·45 | 0·20 | 7·15 | 2·80 | 5·53 | 6·80 | 1·26 | 27·82 |
| 1871 | 2·50 | 1·35 | 4·58 | 1·20 | 1·55 | 6·50 | 0·28 | 3·20 | 3·20 | 7·52 | 4·32 | 0·50 | 36·70 |
| 1872 | 0·20 | 1·60 | 0·30 | 1·30 | 0·25 | 3·75 | 2·80 | 6·05 | 4·90 | 5·00 | 7·23 | 4·25 | 37·63 |
| 1873 | ... | 2·00 | ... | 6·80 | 3·70 | ... | 1·45 | 1·70 | 1·90 | 4·45 | 2·95 | 1·90 | 26·85 |
| 1874 | ... | 0·75 | ... | 3·50 | 4·20 | 0·40 | 1·00 | 3·40 | 2·50 | 4·41 | 8·45 | 2·20 | 30·81 |
| 1875 | ... | ... | 0·25 | 4·00 | 2·70 | 6·87 | 2·48 | 5·92 | 2·15 | 20·35 | 1·40 | 0·60 | 46·72 |
| 1876 | ... | ... | 1·05 | 0·40 | 2·95 | 1·40 | 0·65 | 3·62 | 2·90 | 5·20 | 1·15 | 1·35 | 20·67 |
| 1877 | ... | ... | 0·47 | 0·13 | 2·50 | 2·02 | 0·65 | 0·95 | 5·82 | 16·80 | 11·20 | 13·50 | 54·04 |
| 1878 | 2·15 | ... | ... | 2·05 | 6·50 | 1·10 | 1·52 | 7·56 | 5·25 | 6·30 | 4·50 | 0·95 | 37·88 |
| 1879 | 0·09 | ... | 4·31 | 1·00 | 1·00 | 0·58 | 4·72 | 4·22 | 4·50 | 8·25 | 3·35 | ... | 32·02 |
| 1880 | ... | 1·40 | ... | 2·35 | 1·15 | ... | 0·57 | 6·16 | 1·77 | 14·00 | 6·24 | 1·70 | 35·34 |
| 1881 | 0·35 | ... | 0·11 | ... | 2·79 | 0·94 | 0·70 | 5·29 | 9·95 | 4·56 | 5·89 | 1·98 | 32·56 |
| 1882 | 0·68 | 0·59 | ... | 1·73 | 6·90 | 0·69 | ... | 3·63 | 1·07 | 9·55 | 6·01 | 1·30 | 32·06 |
| 1883 | ... | 1·00 | 0·10 | 0·66 | 3·13 | 1·00 | 2·35 | 3·80 | 4·45 | 8·98 | 10·98 | 2·61 | 39·06 |
| Mean | 0·80 | 0·45 | 0·65 | 2·25 | 2·72 | 1·52 | 1·59 | 4·67 | 4·39 | 8·88 | 5·37 | 2·04 | 35·33 |
| 1884 | 0·08 | ... | 0·04 | 0·10 | 2·80 | 3·17 | 0·42 | 5·64 | 2·16 | 9·29 | 3·33 | 5·19 | 32·22 |
| 1885 | ... | ... | 0·01 | 0·02 | 1·65 | 1·85 | 0·62 | 2·17 | 3·07 | 8·81 | 3·82 | 4·27 | 26·29 |
| 1886 | 0·45 | 0·02 | 0·66 | ... | 7·18 | 0·96 | 6·36 | 5·86 | 12·01 | 4·74 | 1·17 | 0·49 | 39·90 |
| Mean | 0·73 | 0·40 | 0·60 | 1·99 | 2·85 | 1·58 | 1·69 | 4·65 | 4·55 | 8·73 | 5·07 | 2·19 | 35·03 |

No. 394B. PASUMALI (MADURA).

Latitude N. 9° 45′ Longitude E. 78° 16′ Elevation ? feet.

Administration: MADRAS.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1846 | ? | ? | ? | ? | ? | ? | 2·71 | 3·17 | 3·18 | 5·56 | 1·33 | 4·58 | ? |
| 1847 | 0·32 | 2·46 | ... | 8·86 | 6·01 | 0·67 | 0·99 | 2·38 | 2·61 | 9·47 | 9·89 | 1·63 | 45·29 |
| 1848 | ... | 0·49 | ... | 3·86 | 3·48 | 0·83 | 3·96 | 4·40 | 14·16 | 5·70 | 2·91 | 2·29 | 42·08 |
| 1849 | 6·63 | ... | 0·17 | 2·20 | 2·94 | ... | 5·59 | 3·18 | 3·34 | 4·13 | 2·21 | 0·39 | 32·84 |
| 1850 | ... | 0·59 | ... | 2·57 | 2·95 | ... | 1·72 | 6·00 | 5·20 | 5·56 | 5·33 | ? | ? |
| 1851 | ? | ? | ? | 1·95 | 2·56 | 2·20 | 2·74 | 1·94 | 2·39 | 3·34 | 10·75 | 4·67 | ? |
| 1852 | 0·62 | 0·49 | 1·61 | ... | ? | ? | 6·13 | 0·86 | 4·44 | 7·05 | 3·88 | 3·53 | ? |
| 1853 | 4·02 | 0·03 | ... | ... | 2·10 | ... | ... | 4·08 | 9·80 | 9·64 | 1·40 | ... | 31·07 |

PASUMALI (MADURA)—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1854 | ... | ... | 0·50 | 3·65 | 1·00 | 0·55 | 1·98 | 2·68 | 1·93 | 9·27 | 5·51 | 1·36 | 28·43 |
| 1855 | 1·59 | 1·60 | ... | ... | 2·22 | ... | 0·66 | 4·26 | 3·35 | 7·86 | 0·15 | 7·15 | 28·84 |
| 1856 | 0·55 | ... | 1·07 | 4·29 | 5·23 | 1·15 | 0·67 | 8·77 | 5·20 | 7·84 | 1·00 | 1·78 | 37·55 |
| 1857 | 0·53 | ... | ... | ... | 2·50 | 1·77 | 2·83 | 0·97 | 1·29 | 10·06 | 0·88 | ... | 20·83 |
| 1858 | 0·36 | ... | ... | 4·51 | 6·06 | 0·76 | 3·41 | 1·12 | 3·42 | 17·13 | 9·20 | ... | 45·97 |
| 1859 | ... | ... | 0·43 | 7·39 | 1·90 | 0·71 | 2·77 | 6·46 | 5·47 | 4·11 | 10·28 | 0·99 | 40·51 |
| 1860 | ... | 0·22 | ... | P | P | 2·97 | 1·88 | 5·86 | 1·35 | 6·59 | 0·47 | 4·79 | P |
| 1861 | ... | ... | 5·16 | 2·44 | 0·18 | ... | 3·67 | 9·20 | 3·76 | 3·19 | 7·37 | ... | 34·97 |
| 1862 | 0·62 | 1·70 | 0·59 | 0·80 | 2·11 | 2·28 | 2·24 | 3·56 | 7·40 | 11·75 | 6·79 | 3·28 | 43·12 |
| 1863 | 0·15 | 1·07 | 1·27 | 5·25 | 3·34 | 2·30 | ... | 5·70 | 0·76 | 11·61 | 6·46 | 1·24 | 39·15 |
| 1864 | ... | ... | ... | 2·37 | 1·65 | 2·13 | 0·67 | 4·05 | 1·98 | 5·24 | 10·33 | 5·02 | 33·44 |
| 1865 | 0·55 | 0·08 | ... | 4·58 | 1·75 | ... | 5·98 | 1·67 | 4·51 | 9·84 | 3·32 | 0·32 | 32·60 |
| 1866 | 0·14 | 0·37 | ... | ... | 1·93 | 0·07 | 1·13 | 5·30 | 2·53 | 11·10 | 1·80 | 4·58 | 28·95 |
| 1867 | Not on record. | | | | | | | | | | | | |
| 1868 | 3·50 | 0·35 | ... | 1·00 | 5·00 | 1·90 | 3·72 | 0·98 | 4·93 | 8·29 | 3·30 | ... | 32·97 |
| 1869 | ... | 0·75 | 2·85 | P | P | 0·95 | 2·91 | 6·15 | 4·60 | 3·76 | 7·55 | 2·04 | P |
| 1870 | 0·68 | P | 0·50 | P | P | 0·90 | 1·10 | 7·03 | 1·63 | 7·22 | 3·17 | ... | P |
| 1871 | 1·97 | 1·61 | 5·76 | 0·52 | 1·99 | ... | 0·73 | 2·27 | 1·68 | 7·57 | 6·91 | 0·50 | 31·51 |
| 1872 to 1876 | Not on record. | | | | | | | | | | | | |
| 1877 | ... | ... | 0·88 | ... | ... | 1·72 | 0·66 | 4·06 | 6·03 | 16·54 | 5·58 | 9·94 | 42·41 |
| 1878 | 0·91 | ... | ... | 5·11 | 8·42 | 0·60 | 1·77 | 5·97 | 2·56 | 4·39 | 1·78 | 0·25 | 31·76 |
| 1879 | ... | ... | 3·13 | 0·35 | 0·60 | 0·71 | 5·87 | 4·99 | 5·88 | 7·43 | 3·63 | ... | 32·59 |
| 1880 | 0·55 | 1·16 | ... | ... | 0·65 | ... | 0·54 | 7·04 | 0·94 | 10·67 | 5·97 | 1·48 | 29·00 |
| 1881 | ... | ... | 0·05 | ... | 3·80 | 0·57 | 0·17 | 5·44 | 7·81 | 3·83 | 5·30 | 1·12 | 28·09 |
| 1882 | 0·59 | 0·29 | ... | 1·96 | 5·99 | 2·63 | ... | 6·84 | 2·93 | 4·57 | 5·90 | 0·67 | 32·37 |
| 1883 | ... | 1·05 | 0·09 | 1·20 | 8·01 | 0·40 | 4·20 | 2·80 | 8·12 | 11·70 | 11·29 | 3·01 | 51·87 |
| Mean | 0·81 | 0·49 | 0·80 | 2·32 | 3·12 | 0·96 | 2·29 | 4·32 | 4·22 | 7·88 | 5·05 | 2·15 | 34·41 |
| 1884 | ... | ... | P | ... | P | 1·58 | 1·87 | 6·13 | 2·46 | 13·33 | 3·25 | 4·67 | P |
| 1885 | ... | ... | ... | ... | 0·35 | 2·00 | 1·96 | 1·96 | 2·33 | 6·90 | 3·39 | 5·12 | 24·01 |
| 1886 | 0·33 | ... | ... | 2·75 | 3·62 | 3·35 | 4·80 | 6·93 | 6·34 | 4·81 | 1·62 | 0·73 | 35·28 |
| Mean | 0·75 | 0·44 | 0·75 | 2·18 | 3·05 | 1·08 | 2·34 | 4·38 | 4·18 | 7·92 | 4·85 | 2·27 | 34·19 |

No. 395. VATTANUM.

Latitude N. 10° 22′. Longitude E. 79° 53′. Elevation 20 feet.

Administration: MADRAS. Rainfall Province No: XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ... | ... | ... | 1·08 | ... | 1·20 | 2·00 | 6·95 | 0·05 | 1·75 | 10·88 | 3·33 | 27·24 |
| 1871 | 8·38 | 1·39 | 1·90 | 3·02 | 2·35 | ... | 0·93 | 1·02 | 0·53 | 4·37 | 11·92 | 12·92 | 48·73 |
| 1872 | 0·23 | 1·40 | 0·15 | 6·80 | 0·03 | ... | 1·75 | 2·40 | 3·50 | 3·15 | P | P | P |
| 1873 | ... | 6·80 | 0·70 | 8·60 | 5·50 | ... | ... | 0·90 | ... | 5·90 | 5·31 | 1·69 | 35·40 |
| 1874 | ... | 3·80 | ... | 1·75 | 1·25 | 1·60 | 1·15 | 0·40 | 0·57 | 7·03 | 8·30 | 2·82 | 28·67 |

VATTANUM—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1875 | ... | ... | 0·80 | 7·75 | ... | 2·80 | 0·20 | 0·75 | 3·20 | 11·30 | 6·80 | 1·20 | 34·80 |
| 1876 | ... | ... | 0·70 | 7·80 | 1·80 | 0·50 | ... | 4·95 | ... | 5·50 | 4·60 | 8·60 | 34·45 |
| 1877 | ... | ... | 0·25 | 1·00 | 1·30 | ... | 0·70 | ... | 7·55 | 8·35 | 23·20 | 20·55 | 62·90 |
| 1878 | 2·50 | ... | ... | 3·40 | 1·80 | 1·10 | 1·10 | 0·40 | 3·00 | 2·20 | 3·30 | 2·40 | 21·20 |
| 1879 | ... | 0·40 | 5·70 | 1·10 | 0·40 | 0·70 | 1·85 | 2·10 | 4·30 | 11·25 | 4·70 | 1·20 | 33·70 |
| 1880 | 2·20 | 0·10 | 0·45 | 1·30 | 0·52 | 1·00 | 1·60 | 4·05 | 3·05 | 5·68 | 15·32 | 6·52 | 41·79 |
| 1881 | 4·70 | ... | 0·45 | 0·50 | 0·25 | 1·27 | ... | 0·25 | 0·25 | 2·20 | 5·10 | 7·00 | 21·97 |
| 1882 | 0·50 | ... | ... | ... | 0·05 | 0·25 | 0·20 | 2·80 | 0·35 | 5·00 | 8·80 | 5·61 | 23·56 |
| 1883 | 0·75 | 2·80 | 0·30 | 1·90 | 6·90 | ... | 0·20 | 1·27 | 0·05 | 13·90 | 5·65 | 3·19 | 36·91 |
| Mean | 1·38 | 1·19 | 0·81 | 3·29 | 1·58 | 0·74 | 0·83 | 2·02 | 1·89 | 6·26 | 8·76 | 5·93 | 34·68 |
| 1884 | 0·31 | ... | ... | 0·29 | 6·17 | ... | ... | 0·54 | 0·49 | 17·94 | 7·98 | 14·72 | 48·44 |
| 1885 | ... | ... | 0·40 | ... | 2·00 | 2·60 | 0·70 | 0·10 | 0·94 | 6·22 | 10·40 | 12·30 | 35·66 |
| 1886 | 1·32 | 0·15 | ... | 1·62 | 2·45 | 1·55 | 1·90 | 5·90 | 5·75 | 11·97 | 5·62 | 2·92 | 41·15 |
| Mean | 1·23 | 0·99 | 0·69 | 2·82 | 1·93 | 0·86 | 0·84 | 2·05 | 1·98 | 7·28 | 8·62 | 6·69 | 35·98 |

No. 396. SATUR.

Latitude N. 9° 26'. Longitude E. 77° 31'. Elevation 350 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 0·53 | ... | ... | ... | 1·00 | 1·60 | ... | 1·80 | 1·55 | 4·20 | 3·20 | ... | 13·88 |
| 1871 | 3·85 | 1·68 | 1·95 | 1·55 | 1·50 | ... | ... | 0·50 | 1·60 | 3·20 | 4·45 | ... | 20·28 |
| 1872 | ... | 0·30 | 1·30 | 2·40 | 2·60 | ... | 0·61 | 0·75 | 2·45 | 7·10 | 4·90 | 1·50 | 23·91 |
| 1873 | ... | 2·78 | ... | 1·45 | 1·35 | ... | 1·25 | 3·85 | 1·85 | 8·95 | 1·20 | 0·30 | 22·98 |
| 1874 | ... | 1·33 | 0·75 | 1·00 | 0·90 | 0·60 | .... | 0·90 | 2·00 | 2·05 | 3·70 | 4·22 | 17·45 |
| 1875 | ... | ... | 0·28 | 2·98 | 0·75 | 0·70 | 0·25 | 0·60 | 0·70 | 4·95 | 2·10 | 0·10 | 13·41 |
| 1876 | ... | ... | 0·15 | 0·50 | 4·55 | 0·25 | 0·30 | ... | 0·10 | 2·37 | 0·12 | .... | 8·34 |
| 1877 | ... | ... | 2·80 | 1·00 | 2·34 | 0·65 | 0·52 | ... | 5·00 | 10·66 | 10·37 | 9·35 | 42·09 |
| 1878 | 0·20 | ... | ... | 2·05 | 2·62 | 1·07 | 1·67 | 4·30 | 1·07 | 4·10 | 3·60 | 0·10 | 20·78 |
| 1879 | ... | 1·60 | 4·65 | 0·35 | 0·45 | ... | 8·12 | 0·55 | 4·15 | 4·43 | 2·03 | 0·35 | 26·68 |
| 1880 | ... | 0·45 | 0·50 | 1·25 | 0·53 | ... | ... | 2·55 | 1·05 | 7·78 | 6·65 | 1·65 | 22·41 |
| 1881 | ... | ... | 3·50 | ... | 1·17 | ... | 0·20 | 1·70 | 1·05 | 7·15 | 6·07 | 2·65 | 23·49 |
| 1882 | 1·10 | ... | 0·30 | 3·40 | 0·75 | 1·30 | ... | 1·60 | 0·75 | 4·60 | 1·97 | 0·30 | 16·07 |
| 1883 | ... | 2·30 | 0·20 | 4·50 | 9·50 | 1·00 | ... | 1·15 | ... | 8·65 | 9·55 | 3·40 | 40·25 |
| Mean | 0·41 | 0·75 | 1·17 | 1·60 | 2·14 | 0·51 | 0·92 | 1·45 | 1·67 | 5·69 | 4·28 | 1·71 | 22·30 |
| 1884 | 0·90 | ... | ... | 0·20 | 3·12 | 0·80 | ... | 0·30 | 2·15 | 12·30 | 7·15 | 1·40 | 28·32 |
| 1885 | ... | ... | 0·15 | 0·15 | 2·15 | 1·50 | ... | 1·53 | 2·93 | 5·55 | 2·83 | 3·73 | 20·52 |
| 1886 | 0·30 | ... | ... | 0·08 | 2·20 | 2·38 | 4·38 | 4·98 | 4·15 | 4·80 | 1·80 | ... | 25·07 |
| Mean | 0·40 | 0·61 | 0·97 | 1·34 | 2·20 | 0·70 | 1·02 | 1·59 | 1·91 | 6·01 | 4·22 | 1·71 | 22·68 |

No. 397. TUTICORIN.

Latitude N. 8° 48′. Longitude E. 78° 11′. Elevation 20 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | P | P | P | 7·81 | 1·80 | ... | ... | ... | 0·19 | 1·31 | 12·40 | 2·18 | P |
| 1864 | ... | ... | 0·43 | 1·00 | ... | ... | 0·64 | ... | 0·24 | 1·64 | 3·37 | 0·42 | 7·74 |
| 1865 | ... | ... | ... | ... | 1·31 | ... | ... | ... | ... | 5·28 | 0·85 | 0·70 | 8·14 |
| 1866 | 0·97 | ... | ... | ... | ... | ... | ... | ... | ... | 0·44 | 13·88 | 0·56 | 15·85 |
| 1867 | ... | ... | 0·10 | 3·31 | 2·76 | ... | ... | ... | ... | 10·08 | 6·57 | 0·59 | 23·41 |
| 1868 | 3·57 | 0·64 | 0·10 | 0·39 | ... | 1·86 | 0·68 | ... | ... | 10·93 | 4·48 | 0·92 | 23·57 |
| 1869 | 0·16 | 1·63 | ... | ... | ... | ... | 1·62 | 1·09 | 0·18 | ... | 18·03 | 4·62 | 27·33 |
| 1870 | 4·80 | ... | 1·95 | ... | ... | 0·40 | ... | 1·20 | 1·10 | 0·40 | 4·70 | ... | 14·55 |
| 1871 | 7·90 | ... | ... | 2·80 | ... | ... | ... | ... | ... | 4·25 | 9·55 | 2·13 | 26·63 |
| 1872 | ... | ... | ... | 1·55 | ... | ... | ... | 0·30 | 1·50 | 3·70 | 9·20 | 2·30 | 18·55 |
| 1873 | ... | 2·20 | 3·86 | 2·70 | 1·40 | ... | 0·50 | ... | 0·20 | 0·80 | 4·40 | 3·30 | 19·36 |
| 1874 | ... | 0·80 | 0·60 | ... | 2·20 | ... | ... | 0·50 | ... | 2·20 | 9·00 | 1·00 | 16·30 |
| 1875 | ... | ... | ... | 0·80 | ... | ... | ... | ... | ... | 5·80 | 1·50 | ... | 8·10 |
| 1876 | ... | ... | ... | 1·00 | ... | ... | ... | ... | ... | 2·50 | 1·50 | ... | 5·00 |
| 1877 | ... | ... | 1·10 | 2·00 | 0·05 | ... | ... | ... | 0·20 | 5·10 | 13·40 | 13·20 | 35·05 |
| 1878 | 0·40 | ... | ... | 3·00 | 0·80 | ... | ... | 3·00 | 6·00 | 3·90 | 3·30 | 3·20 | 23·60 |
| 1879 | ... | 2·50 | 3·00 | 0·10 | 1·50 | ... | 0·80 | 0·70 | 0·90 | 4·75 | 4·40 | 0·20 | 18·85 |
| 1880 | ... | 0·20 | 2·30 | ... | 0·60 | ... | ... | 0·25 | ... | ... | 13·64 | 4·42 | 21·41 |
| 1881 | 0·70 | ... | 3·00 | 1·00 | 1·30 | ... | ... | 0·50 | ... | 1·80 | 11·00 | 2·90 | 22·29 |
| 1882 | 6·10 | 0·70 | ... | 1·65 | ... | 0·39 | ... | 0·30 | ... | 1·26 | 1·58 | 2·45 | 14·43 |
| 1883 | ... | 4·40 | 1·00 | ... | 6·00 | ... | 0·20 | ... | ... | 5·30 | 10·20 | 2·70 | 29·80 |
| Mean | 1·23 | 0·65 | 0·87 | 1·39 | 0·94 | 0·13 | 0·21 | 0·37 | 0·50 | 3·40 | 7·47 | 2·28 | 19·44 |
| 1884 | 0·50 | ... | 0·08 | 2·15 | ... | ... | ... | ... | 1·25 | 4·43 | 22·53 | 2·28 | 33·22 |
| 1885 | ... | ... | 0·60 | 0·15 | 1·22 | 0·47 | ... | 0·20 | 1·68 | 3·57 | 9·37 | 3·07 | 20·33 |
| 1886 | ... | ... | ... | 0·20 | ... | 0·30 | 0·50 | 1·25 | 2·35 | 8·42 | 4·87 | 0·60 | 18·49 |
| Mean | 1·09 | 0·57 | 0·79 | 1·32 | 0·87 | 0·14 | 0·21 | 0·39 | 0·66 | 3·66 | 8·07 | 2·24 | 20·01 |

No. 398. TINNEVELLY.

Latitude N. 8° 44′. Longitude E. 77° 44′. Elevation 119 feet.

Administration: MADRAS. Rainfall Province No. XXI.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1854 | 0·09 | 0·23 | 2·12 | 0·79 | 1·85 | 0·03 | 0·05 | ... | 0·15 | 11·90 | 16·10 | 0·85 | 34·16 |
| 1855 | 0·09 | 0·06 | 1·05 | 1·28 | 1·20 | 0·06 | P | P | P | P | P | P | P |
| 1856 to 1862 | Not on record. | | | | | | | | | | | | |
| 1863 | P | P | P | 4·98 | 0·46 | 0·20 | 0·13 | 0·45 | ... | 4·36 | 9·93 | 3·06 | P |
| 1864 | 0·10 | ... | 0·85 | 4·65 | 0·95 | 1·95 | 0·18 | 2·58 | 0·45 | 8·08 | 2·50 | 0·69 | 22·28 |

TINNEVELLY—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1865 | ... | ... | 0·35 | 1·80 | 1·45 | ... | ... | ... | 2·50 | 7·05 | 4·05 | 1·85 | 19·05 |
| 1866 | 1·80 | 2·90 | ... | 0·20 | 0·30 | 0·40 | ... | ... | 0·65 | 4·65 | 21·90 | 2·50 | 35·30 |
| 1867 | ... | 1·60 | 2·30 | 2·90 | 0·80 | ... | 1·30 | ... | ... | 24·10 | 4·30 | 0·10 | 37·40 |
| 1868 | 5·20 | 1·70 | 0·55 | ... | 0·50 | 2·25 | ... | ... | 1·30 | 12·10 | 7·20 | 1·25 | 32·05 |
| 1869 | 1·80 | 1·10 | 2·10 | 0·30 | 0·40 | 0·10 | 2·05 | 3·99 | 1·10 | 3·23 | 21·20 | 4·10 | 41·47 |
| 1870 | 5·30 | ... | 0·30 | 1·30 | ... | 1·75 | ... | ... | 0·30 | 1·63 | 8·85 | 2·75 | 22·18 |
| 1871 | 10·20 | 1·90 | 0·95 | 3·80 | 1·00 | 0·50 | 0·20 | 0·55 | ... | 4·60 | 10·40 | 1·75 | 35·85 |
| 1872 | ... | 0·70 | 3·10 | 0·95 | 0·80 | 1·30 | ... | 1·30 | 4·30 | 0·40 | 11·30 | 2·75 | 26·90 |
| 1873 | ... | 3·85 | 2·07 | 1·75 | 3·65 | ... | ... | 0·30 | ... | .... | 5·85 | 0·70 | 18·17 |
| 1874 | ... | 1·70 | 0·90 | 2·05 | 1·13 | 0·40 | ... | ... | ... | 5·35 | 14·15 | 0·70 | 26·38 |
| 1875 | ... | 0·50 | 0·60 | 1·95 | ... | ... | ... | ... | 0·40 | 6·88 | 4·60 | 2·50 | 17·43 |
| 1876 | ... | ... | 2·35 | 2·55 | 1·80 | ... | ... | ... | 0·88 | 5·30 | 4·30 | 1·80 | 18·98 |
| 1877 | ... | .... | 2·43 | 0·52 | ... | 2·50 | ... | ... | 1·72 | 5·52 | 15·82 | 14·60 | 43·11 |
| 1878 | 1·75 | ... | 0·12 | 3·62 | 6·67 | 1·15 | ... | 0·35 | 1·80 | 1·12 | 5·15 | 2·85 | 24·58 |
| 1879 | ... | 0·30 | 7·90 | 0·20 | 4·80 | ... | 0·75 | 0·31 | 2·11 | 6·00 | 5·65 | 4·50 | 32·52 |
| 1880 | 1·20 | 0·60 | .... | 5·40 | 1·75 | ... | 0·25 | 0·65 | ... | 5·50 | 18·25 | 6·45 | 40·05 |
| 1881 | 1·35 | ... | 1·40 | 0·75 | 2·35 | ... | ... | ... | 1·25 | 3·20 | 10·07 | 2·35 | 22·72 |
| 1882 | 2·00 | 1·05 | 0·55 | 1·50 | 1·23 | 1·35 | 0·70 | 1·80 | 0·15 | 5·10 | 3·80 | 4·15 | 23·38 |
| 1883 | 0·22 | 4·07 | 3·47 | 0·90 | 4·35 | 1·93 | 1·25 | 0·32 | ... | 7·45 | 6·02 | 2·48 | 32·46 |
| Mean | **1·41** | **1·01** | **1·58** | **1·92** | **1·63** | **0·69** | **0·31** | **0·57** | **0·87** | **6·07** | **9·61** | **2·94** | **28·61** |
| 1884 | 0·35 | ... | 0·22 | 0·85 | 0·80 | 1·95 | ... | 0·17 | 0·40 | 7·20 | 17·17 | 8·20 | 37·31 |
| 1885 | 0·85 | ... | 0·30 | 1·17 | 1·25 | 1·70 | ... | 0·35 | 1·05 | 3·25 | 8·15 | 10·47 | 28·54 |
| 1886 | 0·45 | ... | 0·65 | 0·95 | 2·25 | 0·07 | 1·30 | 1·00 | 2·12 | 6·00 | 4·30 | 0·85 | 19·94 |
| Mean | **1·31** | **0·89** | **1·44** | **1·81** | **1·61** | **0·75** | **0·33** | **0·56** | **0·91** | **6·00** | **9·64** | **3·37** | **28·62** |

No. 399. MANGALORE.

Latitude N. 12° 52′. Longitude E. 74° 54′. Elevation 52 feet.

Administration: MADRAS. Rainfall Province No. XVIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1853 | 0·11 | 0·03 | 1·60 | 2·41 | 1·48 | 48·84 | 26·38 | 15·51 | 6·20 | 4·55 | 1·93 | ... | 109·04 |
| 1854 | ... | ... | ... | 0·19 | 3·90 | 41·36 | 34·41 | 28·84 | 9·48 | 11·58 | 3·96 | 0·48 | 134·20 |
| 1855 | ... | ... | ... | ... | 1·45 | 39·14 | 20·09 | 19·02 | 8·38 | 16·20 | ... | ... | 104·28 |
| 1856 | ... | ... | ... | 5·42 | 33·20 | 48·72 | 43·50 | 29·38 | 1·67 | 5·53 | ... | ... | 167·42 |
| 1857 | ? | ? | ? | 0·99 | 44·45 | 34·96 | ? | ? | ? | ? | ? | ? | ? |
| 1858 | ? | ? | ? | ? | ? | ? | 40·31 | 12·66 | 12·62 | 5·44 | 2·69 | ... | ? |
| 1859 | ? | ? | 0·81 | 9·94 | 1·88 | ? | 32·92 | 23·50 | 10·19 | 14·75 | 2·54 | 0·13 | ? |
| 1860 | ... | ... | ... | ... | 4·31 | 29·14 | 30·58 | 11·65 | 11·32 | 11·08 | ... | ... | 98·08 |
| 1861 | ? | ? | ? | 5·57 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1862 | ? | ? | ? | 0·54 | ? | ? | 22·57 | 35·49 | 12·34 | 8·41 | 3·81 | 1·65 | ? |
| 1863 | ? | ? | ? | 7·20 | 2·73 | 43·40 | 58·77 | 25·31 | 6·74 | 4·92 | 0·16 | 1·24 | 150·47 |
| 1864 | ... | ... | ... | 0·24 | 4·07 | 47·01 | 37·04 | 15·60 | 13·74 | 2·39 | 0·06 | 0·13 | 120·28 |
| 1865 | ... | ... | ... | 8·29 | 12·26 | 30·27 | 27·05 | 34·72 | 4·53 | 5·83 | 5·79 | 0·07 | 128·51 |

MANGALORE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1866 | ... | ... | ... | ... | 0·77 | 33·77 | 52·79 | 16·79 | 6·30 | 16·97 | ... | 0·22 | 127·61 |
| 1867 | ... | ... | ... | ... | 1·45 | 22·59 | 36·08 | 30·19 | 17·02 | 9·06 | ... | ... | 116·39 |
| 1868 | 0·11 | ... | ... | 1·28 | 6·94 | 69·89 | 42·39 | 11·99 | 4·91 | 1·03 | 0·73 | ... | 139·27 |
| 1869 | ... | ... | ... | 0·84 | 0·84 | 24·96 | 25·32 | 16·14 | 21·20 | 7·21 | 2·94 | 5·93 | 105·38 |
| 1870 | ... | ... | 0·50 | 0·84 | 1·76 | 34·99 | 39·84 | 20·48 | 9·90 | 15·98 | 1·48 | ... | 125·77 |
| 1871 | 4·16 | 1·78 | ... | 1·98 | 6·94 | 50·32 | 51·55 | 15·62 | 17·08 | 9·79 | 2·09 | ... | 161·31 |
| 1872 | ... | ... | ... | 0·66 | 6·31 | 36·67 | 70·43 | 35·69 | 8·98 | 3·79 | 1·07 | 0·91 | 164·51 |
| 1873 | ... | 0·52 | ... | 0·88 | 10·11 | 43·47 | 23·74 | 16·53 | 10·34 | 9·37 | ... | 0·78 | 115·74 |
| 1874 | ... | 0·02 | ... | 3·55 | 22·43 | 39·29 | 49·35 | 19·29 | 24·76 | 12·72 | 3·25 | 0·45 | 175·11 |
| 1875 | ... | ... | ... | 2·30 | 2·00 | 36·52 | 34·94 | 21·47 | 6·42 | 2·59 | 0·31 | 0·96 | 108·11 |
| 1876 | ... | ... | 0·35 | 2·70 | 1·75 | 38·29 | 45·93 | 21·24 | 9·57 | 1·54 | 0·10 | ... | 121·47 |
| 1877 | ... | ... | ... | 0·56 | 0·49 | 40·82 | 25·16 | 34·33 | 17·68 | 12·24 | 1·76 | 0·04 | 133·08 |
| 1878 | ... | ... | 0·05 | 4·85 | 8·94 | 47·61 | 33·27 | 43·92 | 29·48 | 12·44 | 1·30 | 0·44 | 182·30 |
| 1879 | ... | ... | 0·05 | 0·10 | 31·52 | 30·75 | 34·50 | 32·94 | 10·70 | 10·88 | 3·44 | 0·30 | 155·18 |
| 1880 | ... | ... | ... | 1·20 | 5·22 | 40·55 | 41·50 | 8·82 | 8·85 | 5·58 | 3·65 | 2·20 | 117·57 |
| 1881 | ... | ... | ... | ... | 4·50 | 24·34 | 11·34 | 35·13 | 12·41 | 0·90 | 6·88 | ... | 95·50 |
| 1882 | ... | ... | ... | 0·55 | 14·15 | 38·75 | 58·75 | 21·77 | 11·28 | 3·98 | 1·70 | ... | 150·93 |
| 1883 | ... | ... | 0·02 | 2·47 | 3·31 | 26·95 | 47·54 | 23·40 | 7·46 | 5·74 | 2·34 | 0·36 | 119·59 |
| Mean | 0·18 | 0·09 | 0·13 | 2·19 | 8·56 | 38·64 | 37·86 | 23·36 | 11·43 | 8·01 | 1·86 | 0·56 | 132·87 |
| 1884 | ... | ... | ... | 0·10 | 0·47 | 25·33 | 26·36 | 32·03 | 15·11 | 5·40 | 2·18 | 0·14 | 107·12 |
| 1885 | ... | ... | ... | ... | 0·55 | 42·20 | 48·12 | 17·92 | 5·57 | 11·42 | 1·45 | 0·70 | 127·93 |
| 1886 | ... | ... | ... | ... | 9·32 | 23·97 | 39·00 | 11·17 | 10·14 | 6·74 | 3·65 | ... | 103·99 |
| Mean | 0·16 | 0·08 | 0·12 | 1·99 | 8·07 | 37·83 | 37·86 | 23·08 | 11·32 | 7·99 | 1·91 | 0·53 | 130·94 |

No. 400. CANNANORE.

Latitude N. 11° 51′. Longitude E. 75° 25′. Elevation 51 feet.

Administration: MADRAS. Rainfall Province No. XVIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1853 | 0·50 | 0·20 | 0·65 | 4·05 | 5·60 | 62·75 | 32·10 | 6·85 | 1·60 | P | 0·70 | ... | P |
| 1854 | ... | ... | ... | 0·05 | 1·55 | 28·60 | 34·85 | 21·35 | 6·55 | 18·50 | 0·75 | 0·85 | 113·05 |
| 1855 to 1862 | Records wanting. | | | | | | | | | | | | |
| 1863 1864 | Untrustworthy. | | | | | | | | | | | | |
| 1865 | ... | ... | ... | 1·77 | 12·26 | 40·74 | 40·85 | 17·96 | 4·34 | 4·36 | 1·29 | 1·60 | 125·17 |
| 1866 | ... | ... | ... | ... | 0·38 | 21·60 | 43·73 | 8·13 | 9·20 | 14·41 | 2·57 | 0·80 | 100·82 |
| 1867 | ... | ... | 0·43 | 0·95 | 7·48 | 33·90 | 45·23 | 27·01 | 7·30 | 3·61 | ... | ... | 125·91 |
| 1868 | 2·01 | ... | ... | 5·37 | 5·90 | 85·51 | 18·30 | 7·48 | 5·43 | 9·99 | 0·71 | ... | 140·70 |
| 1869 | ... | ... | ... | 1·17 | 0·84 | 50·36 | 72·03 | 16·74 | 21·39 | 11·49 | 9·37 | P | 183·39 P |
| 1870 | ... | ... | 0·54 | 0·20 | 2·43 | 31·00 | 32·42 | 10·02 | 6·42 | 19·52 | 0·95 | ... | 103·50 |
| 1871 | 6·78 | ... | ... | 4·05 | 7·30 | 42·30 | 47·77 | 10·75 | 9·92 | 4·25 | 8·47 | ... | 141·59 |

CANNANORE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | ... | ... | ... | 0·15 | 11·80 | 37·45 | 38·52 | 21·70 | 14·15 | 0·90 | 0·50 | 0·20 | 125·37 |
| 1873 | ... | 5·60 | ... | 5·35 | 9·55 | 37·37 | 42·37 | 10·12 | 4·00 | 4·07 | ... | 0·62 | 119·05 |
| 1874 | ... | ... | ... | 3·79 | 21·67 | 57·73 | 33·47 | 19·95 | 11·54 | 3·65 | 1·40 | 0·20 | 153·31 |
| 1875 | ... | ... | ... | 2·38 | 3·71 | 43·67 | 32·75 | 16·50 | 6·00 | 1·90 | 0·50 | 0·45 | 107·86 |
| 1876 | ... | ... | 0·55 | 2·10 | 1·59 | 30·82 | 43·59 | 12·95 | 5·21 | 0·45 | 0·20 | ... | 97·46 |
| 1877 | ... | ... | ... | 2·13 | 1·65 | 38·62 | 10·52 | 30·40 | 13·50 | 18·66 | 2·72 | 0·90 | 119·10 |
| 1878 | ... | ... | 0·05 | 1·35 | 8·30 | 41·70 | 23·65 | 47·92 | 26·00 | 10·80 | 6·30 | 0·15 | 166·42 |
| 1879 | ... | ... | 0·30 | 1·70 | 20·10 | 24·00 | 25·30 | 18·41 | 8·10 | 8·10 | 5·20 | 0·71 | 111·92 |
| 1880 | ... | ... | ... | 2·70 | 9·65 | 34·20 | 29·25 | 7·23 | 4·65 | 1·70 | 4·70 | 1·30 | 95·38 |
| 1881 | ... | ... | ... | ... | 0·01 | 4·45 | 13·60 | 11·81 | 30·83 | 7·00 | 2·01 | 8·85 | 0·45 | 79·01 |
| 1882 | 2·95 | ... | ... | 0·90 | 4·83 | 45·35 | 56·55 | 14·82 | 12·65 | 9·10 | 1·60 | ... | 148·75 |
| 1883 | ... | ... | 0·40 | 1·68 | 6·20 | 29·15 | 41·80 | 15·59 | 2·63 | 5·37 | 8·80 | 0·50 | 112·12 |
| Mean | 0·58 | 0·28 | 0·14 | 1·99 | 7·02 | 39·54 | 36·04 | 17·75 | 8·93 | 7·64 | 3·12 | 0·44 | 123·47 |
| 1884 | ... | ... | ... | 2·20 | 4·96 | 24·93 | 23·43 | 29·10 | 13·20 | 3·68 | 3·95 | 0·10 | 105·55 |
| 1885 | ... | ... | ... | 0·45 | 3·30 | 53·74 | 51·27 | 18·02 | 3·62 | 18·09 | 1·12 | 2·47 | 152·08 |
| 1886 | ... | ... | ... | 0·05 | 15·23 | 26·42 | 35·88 | 6·45 | 8·31 | 8·22 | 2·05 | ... | 102·61 |
| Mean | 0·51 | 0·24 | 0·12 | 1·85 | 7·12 | 38·98 | 36·14 | 17·76 | 8·86 | 7·95 | 3·03 | 0·49 | 123·05 |

No. 401. TELLICHERRY.

Latitude N. 11° 45′. Longitude E. 75° 32′. Elevation 50 feet.

Administration: MADRAS. Rainfall Province No. XVIII.

| Year | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ? | ? | 2·84 | 9·57 | 6·42 | 45·67 | 52·50 | 26·56 | 7·27 | 4·64 | 0·52 | 0·95 | 156·94? |
| 1864 | ... | ... | ... | 0·17 | 3·39 | 42·59 | 51·88 | 13·95 | 11·63 | 0·60 | 0·33 | 0·23 | 124·77 |
| 1865 | ... | ... | ... | 3·09 | 14·48 | 38·91 | 45·14 | 23·46 | 6·32 | 5·79 | 1·49 | 1·43 | 140·11 |
| 1866 | ... | ... | ... | ... | 4·09 | 39·62 | 36·15 | 10·43 | 4·31 | 7·44 | ... | 2·98 | 105·02 |
| 1867 | ... | ... | 0·56 | 1·33 | 4·62 | 34·73 | 40·34 | 18·51 | 14·00 | 9·42 | 0·10 | ... | 123·61 |
| 1868 | 1·05 | ... | 0·66 | 7·60 | 4·07 | 65·48 | 18·66 | 7·68 | 3·46 | 2·67 | 2·97 | ... | 114·30 |
| 1869 | ... | ... | 0·50 | 2·41 | 3·29 | 30·32 | 41·53 | 13·32 | 18·23 | 8·29 | 2·52 | 2·26 | 122·67 |
| 1870 | ... | ... | 0·20 | ... | 3·80 | 33·43 | 33·37 | 7·90 | 6·75 | 16·22 | 2·30 | 0·52 | 104·49 |
| 1871 | 6·87 | ... | 1·90 | 5·50 | 7·37 | 40·75 | 49·20 | 12·97 | 14·20 | 3·85 | 7·15 | 0·30 | 150·06 |
| 1872 | ... | ... | ... | 4·62 | 6·25 | 41·85 | 44·05 | 21·12 | 18·55 | 0·97 | 1·49 | 0·10 | 139·00 |
| 1873 | ... | 1·50 | ... | 2·70 | 12·00 | 39·77 | 43·30 | 10·03 | 4·90 | 9·82 | ... | 0·70 | 124·72 |
| 1874 | ... | ... | ... | 3·47 | 30·35 | 54·90 | 37·05 | 14·10 | 12·01 | 6·43 | 4·30 | 0·20 | 162·81 |
| 1875 | ... | ... | ... | 1·90 | 5·22 | 41·14 | 26·90 | 15·10 | 6·09 | 3·30 | 1·40 | 0·40 | 101·45 |
| 1876 | ... | ... | 0·17 | 2·12 | 0·02 | 30·90 | 38·12 | 11·46 | 6·14 | 0·12 | 1·06 | ... | 90·05 |
| 1877 | ... | ... | ... | 3·59 | 4·04 | 39·32 | 11·20 | 29·03 | 17·66 | 16·95 | 0·40 | 1·67 | 123·86 |
| 1878 | ... | ... | ... | 2·76 | 9·65 | 43·35 | 24·46 | 36·10 | 27·94 | 15·66 | 3·47 | 1·20 | 164·59 |
| 1879 | ... | ... | 0·90 | 1·20 | 25·70 | 23·50 | 27·10 | 17·50 | 6·40 | 9·80 | 2·50 | 1·60 | 116·20 |
| 1880 | 0·05 | ... | 0·05 | 7·23 | 15·04 | 37·96 | 27·24 | 6·85 | 5·79 | 2·00 | 10·45 | 3·13 | 113·79 |
| 1881 | ... | ... | ... | 1·38 | 10·56 | 14·36 | 11·98 | 27·75 | 6·92 | 3·76 | 7·00 | ... | 83·71 |

TELLICHERRY—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1882 | 1·03 | ... | ... | 1·11 | 15·53 | 47·30 | 61·91 | 14·80 | 7·97 | 7·42 | 1·97 | ... | 159·04 |
| 1883 | ... | ... | 0·40 | 1·95 | 4·25 | 31·95 | 39·49 | 14·80 | 2·19 | 9·16 | 11·55 | 1·22 | 116·96 |
| Mean | 0·45 | 0·08 | 0·39 | 3·03 | 8·96 | 38·94 | 36·27 | 16·83 | 9·94 | 6·87 | 3·00 | 0·90 | 125·66 |
| 1884 | ... | ... | 0·02 | 1·26 | 1·32 | 27·97 | 26·45 | 36·58 | 18·18 | 3·85 | 3·00 | 0·05 | 118·68 |
| 1885 | ... | ... | 0·25 | ... | 7·28 | 57·90 | 49·78 | 18·30 | 3·50 | 11·60 | 4·65 | 2·30 | 155·56 |
| 1886 | ... | ... | ... | 4·20 | 16·45 | 30·64 | 39·32 | 7·58 | 9·05 | 7·10 | 2·90 | ... | 117·24 |
| Mean | 0·39 | 0·07 | 0·35 | 2·88 | 8·88 | 38·93 | 36·55 | 17·33 | 9·98 | 6·95 | 3·06 | 0·89 | 126·26 |

No. 402. MANANTODDY.

Latitude N. 11° 48′. Longitude E. 76° 3′. Elevation 2,558 feet.

Administration: MADRAS. Rainfall Province No. XVIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | 0·31 | ... | ... | 2·42 | 7·38 | 15·50 | 10·61 | 21·18 | 4·63 | 6·34 | 0·66 | ... | 69·03 |
| 1869 | ... | ... | ... | 2·29 | 0·20 | 14·85 | 26·63 | 9·45 | 6·72 | 6·40 | 1·66 | 1·20 | 69·31 |
| 1870 | 0·70 | ... | 2·49 | 0·04 | 2·55 | 28·05 | 27·62 | 7·25 | 7·15 | 7·05 | 0·65 | 0·27 | 83·82 |
| 1871 | 3·32 | 0·20 | 0·50 | 3·75 | 5·55 | 29·27 | 26·20 | 15·85 | 12·90 | 5·55 | 8·45 | ... | 111·54 |
| 1872 | ... | ... | ... | 1·75 | 3·85 | 20·50 | 35·05 | 12·95 | 5·30 | 0·85 | 2·35 | 1·90 | 84·50 |
| 1873 | ... | 5·10 | ... | 1·60 | 7·15 | 16·70 | 45·33 | 17·75 | 7·10 | 4·75 | 0·50 | 1·00 | 106·98 |
| 1874 | ... | 0·08 | ... | 2·75 | 5·45 | 37·35 | 31·40 | 11·30 | 8·33 | 6·43 | 1·80 | 1·38 | 106·27 |
| 1875 | ... | ... | 1·10 | 2·40 | 5·85 | 19·76 | 32·85 | 12·15 | 4·70 | 4·90 | 0·75 | 0·15 | 84·61 |
| 1876 | ... | ... | 4·75 | 2·00 | 1·40 | 10·55 | 48·97 | 18·38 | 12·96 | 2·59 | ... | ... | 101·60 |
| 1877 | ... | 0·10 | 1·82 | 5·05 | 2·44 | 41·37 | 11·61 | 25·63 | 6·80 | 14·62 | 0·97 | 2·32 | 112·73 |
| 1878 | ... | ... | 2·74 | 1·29 | 6·25 | 13·30 | 15·18 | 21·97 | 15·04 | 1·91 | 2·22 | 0·34 | 80·24 |
| 1879 | ... | 0·40 | 1·18 | 3·73 | 21·93 | 15·65 | 18·55 | 18·90 | 7·63 | 7·62 | 0·92 | 0·57 | 97·08 |
| 1880 | ... | ... | 0·40 | 6·10 | 2·67 | 22·00 | 28·90 | 9·55 | 6·62 | 7·75 | 2·23 | 1·00 | 87·22 |
| 1881 | ... | ... | 1·30 | 3·58 | 1·64 | 9·13 | 30·63 | 20·33 | 5·57 | 2·96 | 10·36 | ... | 85·50 |
| 1882 | 0·30 | ... | 0·95 | 2·91 | 4·29 | 47·06 | 84·68 | 14·98 | 9·89 | 7·87 | 2·68 | ... | 175·61 |
| 1883 | ... | ... | 2·31 | 2·75 | 2·74 | 21·47 | 38·41 | 30·46 | 4·83 | 7·57 | 2·26 | 1·69 | 114·49 |
| Mean | 0·29 | 0·37 | 1·22 | 2·77 | 5·08 | 22·66 | 32·04 | 16·76 | 7·89 | 5·95 | 2·40 | 0·74 | 98·17 |
| 1884 | ... | ... | ... | 2·62 | 1·80 | 12·20 | 21·94 | 31·51 | 9·58 | 5·87 | 2·96 | 0·12 | 88·60 |
| 1885 | ... | ... | 0·83 | 2·65 | 1·89 | 31·78 | 25·07 | 25·10 | 1·46 | 5·26 | 1·20 | 1·55 | 96·79 |
| 1886 | ... | ... | ... | 1·88 | 7·98 | 23·68 | 31·43 | 9·18 | 5·56 | 5·22 | 2·22 | 0·05 | 87·20 |
| Mean | 0·24 | 0·31 | 1·07 | 2·71 | 4·90 | 22·64 | 31·11 | 17·57 | 7·51 | 5·87 | 2·36 | 0·71 | 97·00 |

No. 403. CALICUT.

Latitude N. 11° 15′. Longitude E. 75° 49′. Elevation 50 feet.

Administration: MADRAS. Rainfall Province No. XVIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1853 | ... | ... | 2·90 | 5·14 | 8·10 | 61·16 | 34·90 | 9·07 | 1·95 | 6·97 | 1·95 | ... | 132·14 |
| 1854 | ... | ... | ... | ... | 2·52 | 22·20 | 33·17 | 18·35 | 9·94 | 1·00 | 7·70 | 4·33 | 99·21 |
| 1855 to 1862 | Records wanting. | | | | | | | | | | | | |
| 1863 | ? | ? | ·7·23 | 12·00 | 9·12 | 41·04 | 38·29 | 20·30 | 6·59 | 4·31 | 0·54 | 1·67 | 141·09? |
| 1864 | ... | ... | ... | 1·39 | 4·71 | 32·89 | 43·79 | 13·04 | 6·47 | 4·76 | 1·08 | 0·18 | 99·31 |
| 1865 | ... | ... | 0·29 | 2·88 | 10·03 | 25·33 | 32·19 | 12·46 | 1·75 | 11·63 | 3·59 | 0·52 | 100·67 |
| 1866 | 0·45 | ... | ... | 0·16 | 2·99 | 23·93 | 26·70 | 8·24 | 3·87 | 7·08 | 0·77 | 4·47 | 78·66 |
| 1867 | ... | ... | 0·61 | 0·91 | 12·84 | 26·67 | 23·14 | 18·43 | 5·68 | 5·68 | 3·11 | ... | 97·07 |
| 1868 | 0·84 | ... | ... | 3·85 | 5·18 | 60·44 | 21·50 | 7·28 | 5·33 | 7·85 | 3·55 | ... | 115·82 |
| 1869 | ... | ... | ... | 1·00 | 6·19 | 34·86 | 30·87 | 11·93 | 14·51 | 8·27 | 4·90 | 10·95 | 123·48 |
| 1870 | ... | ... | 2·51 | 0·25 | 6·64 | 38·24 | 23·94 | 8·93 | 5·27 | 14·09 | 1·50 | ... | 101·37 |
| 1871 | 1·92 | ... | 2·12 | 3·26 | 5·32 | 43·33 | 45·64 | 14·68 | 9·79 | 6·25 | 10·68 | 0·66 | 143·65 |
| 1872 | ... | 0·70 | ... | 3·21 | 7·17 | 36·05 | 27·73 | 16·23 | 20·22 | 3·63 | 1·52 | 2·40 | 118·86 |
| 1873 | ... | 2·60 | ... | 6·45 | 12·57 | 33·70 | 38·65 | 5·59 | 6·63 | 4·56 | .... | 1·58 | 112·43 |
| 1874 | ... | 0·15 | ... | 0·40 | 22·28 | 46·31 | 33·24 | 12·48 | 7·50 | 16·10 | 1·40 | 2·10 | 141·96 |
| 1875 | ... | ... | 0·75 | 4·77 | 5·23 | 39·93 | 29·51 | 11·56 | 3·77 | 5·47 | 2·45 | 0·91 | 104·35 |
| 1876 | ... | ... | 2·85 | 0·15 | 2·05 | 30·71 | 33·66 | 12·90 | 2·62 | 1·56 | 0·45 | ... | 86·95 |
| 1877 | ... | ... | ... | 2·25 | 6·63 | 35·38 | 13·59 | 24·55 | 21·52 | 24·99 | 7·60 | 1·34 | 137·85 |
| 1878 | ... | ... | ... | 3·70 | 13·02 | 48·66 | 26·35 | 34·14 | 21·28 | 13·70 | 3·67 | 1·25 | 165·77 |
| 1879 | 0·16 | ... | 0·86 | 3·93 | 27·23 | 17·91 | 27·86 | 13·10 | 6·24 | 9·96 | 1·80 | 2·70 | 111·75 |
| 1880 | ... | ... | 1·25 | 4·22 | 21·17 | 30·90 | 22·44 | 5·58 | 7·31 | 5·89 | 6·16 | 0·37 | 105·29 |
| 1881 | ... | ... | ... | 0·32 | 3·05 | 13·39 | 18·39 | 23·95 | 5·99 | 4·30 | 4·89 | 0·02 | 74·30 |
| 1882 | 0·52 | ... | 0·10 | 0·72 | 25·90 | 35·96 | 39·50 | 12·61 | 7·55 | 13·97 | 4·56 | 0·15 | 141·54 |
| 1883 | ... | ... | 1·50 | 9·30 | 5·30 | 29·90 | 28·57 | 13·60 | 4·20 | 15·67 | 3·73 | 0·15 | 111·92 |
| Mean | 0·18 | 0·16 | 1·00 | 3·05 | 9·80 | 35·17 | 29·77 | 14·30 | 8·09 | 8·60 | 3·37 | 1·55 | 115·04 |
| 1884 | ... | ... | ... | 0·87 | 3·71 | 21·62 | 20·99 | 19·14 | 10·07 | 4·81 | 7·47 | 2·40 | 91·08 |
| 1885 | ... | ... | ... | 1·65 | 4·00 | 52·67 | 41·30 | 17·90 | 2·32 | 11·22 | 4·45 | 4·29 | 139·80 |
| 1886 | ... | 0·30 | ... | 2·00 | 15·35 | 25·65 | 28·85 | 5·90 | 7·05 | 10·19 | 3·04 | 1·45 | 99·78 |
| Mean | 0·16 | 0·15 | 0·88 | 2·88 | 9·55 | 34·95 | 29·84 | 14·31 | 7·90 | 8·61 | 3·56 | 1·69 | 114·48 |

No. 404. PALGHAT.

Latitude N. 10° 46′. Longitude E. 76° 42′. Elevation 800 feet.

Administration: MADRAS. Rainfall Province No. XVIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ... | ... | 0·88 | 5·09 | 4·25 | 41·91 | 26·38 | 27·66 | 2·01 | 4·16 | ... | ... | 112·34 |
| 1864 | ... | ... | ... | 2·30 | 3·15 | 25·51 | 40·71 | 8·48 | 7·80. | 3·17 | ... | ... | 91·12 |

PALGHAT—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1865 | ... | ... | ... | ... | 2·19 | 23·08 | 31·24 | 11·90 | 4·50 | 5·09 | 0·76 | ... | 79·36 |
| 1866 | 1·22 | ... | ... | ... | 0·19 | 8·07 | 15·13 | 7·24 | 6·90 | 8·08 | 0·99 | 0·09 | 48·81 |
| 1867 | ... | ... | 0·96 | 1·65 | 1·72 | 14·20 | 8·60 | 2·08 | 3·89 | 4·72 | 0·19 | ... | 38·01 |
| 1868 | ... | ... | ... | 0·52 | 1·65 | 21·39 | 7·29 | 7·53 | 1·38 | 0·15 | 0·06 | ... | 45·87 |
| 1869 | ... | ... | ... | 2·54 | 1·95 | 18·22 | 15·92 | 4·59 | 5·36 | 7·89 | 10·50 | 1·90 | 68·87 |
| 1870 | 0·30 | ... | ... | ... | ... | 11·00 | 10·98 | 3·97 | 7·36 | 5·67 | 1·85 | 1·25 | 48·38 |
| 1871 | ... | ... | ... | 9·25 | 3·12 | 22·75 | 24·55 | 8·45 | 5·02 | 2·48 | 11·55 | ... | 87·17 |
| 1872 | ... | 0·90 | ... | 3·05 | 8·95 | 12·42 | 19·42 | 9·05 | 11·30 | 4·15 | 2·97 | 1·40 | 73·01 |
| 1873 | ... | 1·65 | ... | 2·25 | 6·00 | 15·30 | 22·80 | 6·75 | 4·50 | 9·15 | 1·50 | ... | 69·90 |
| 1874 | ... | ... | ... | 3·00 | 12·33 | 25·70 | 18·17 | 9·13 | 5·18 | 4·78 | 2·34 | 0·40 | 81·03 |
| 1875 | ... | ... | 0·45 | 4·88 | 2·63 | 19·21 | 20·40 | 9·85 | 3·15 | 7·15 | 1·20 | 0·47 | 69·39 |
| 1876 | ... | ... | 0·30 | 0·25 | 4·04 | 6·17 | 26·20 | 8·23 | 2·80 | 4·27 | 2·25 | ... | 54·51 |
| 1877 | ... | 0·02 | 2·19 | 0·25 | 3·18 | 20·41 | 5·49 | 24·48 | 9·59 | 12·64 | 5·02 | 7·20 | 90·47 |
| 1878 | ... | ... | 1·90 | 1·54 | 1·92 | 16·88 | 15·53 | 19·51 | 18·44 | 5·12 | 3·08 | 1·19 | 85·11 |
| 1879 | ... | ... | 2·80 | ... | 17·21 | 12·40 | 24·11 | 10·61 | 9·10 | 13·40 | 3·40 | ... | 93·03 |
| 1880 | ... | ... | ... | 3·45 | 2·95 | 23·09 | 17·40 | 7·75 | 4·89 | 8·02 | 7·74 | 0·20 | 75·49 |
| 1881 | 0·01 | ... | 0·80 | 0·51 | 2·07 | 3·94 | 14·29 | 10·79 | 4·63 | 6·82 | 8·60 | 0·68 | 53·14 |
| 1882 | ... | ... | ... | 2·38 | 2·84 | 28·30 | 37·67 | 11·96 | 7·59 | 7·51 | 6·50 | ... | 104·75 |
| 1883 | ... | ... | 0·63 | 1·10 | 8·27 | 19·85 | 25·44 | 16·54 | 3·15 | 11·13 | 5·09 | 2·25 | 93·45 |
| Mean | 0·07 | 0·12 | 0·52 | 2·10 | 4·31 | 18·59 | 20·65 | 10·79 | 6·12 | 6·74 | 3·60 | 0·85 | 74·46 |
| 1884 | ... | ... | 0·35 | 0·70 | 7·62 | 7·45 | 9·76 | 12·10 | 7·85 | 12·48 | 1·43 | 0·01 | 59·75 |
| 1885 | ... | ... | ... | 0·30 | 0·68 | 20·35 | 18·69 | 15·93 | 4·70 | 4·92 | 1·55 | 4·33 | 71·45 |
| 1886 | ... | ... | ... | 1·05 | 10·38 | 12·90 | 17·75 | 7·30 | 4·75 | 10·55 | 2·23 | ... | 66·91 |
| Mean | 0·06 | 0·11 | 0·47 | 1·92 | 4·55 | 17·96 | 20·00 | 10·91 | 6·08 | 7·06 | 3·37 | 0·93 | 73·42 |

No. 405. COCHIN.

Latitude N. 9° 58′. Longitude E. 76° 17′. Elevation 11 feet.

Administration: MADRAS. Rainfall Province No. XVIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1842 | ... | ... | ... | 3·05 | 25·07 | 25·05 | 13·70 | 21·65 | 10·15 | 3·55 | 3·65 | ... | 105·87 |
| 1843 | 5·15 | ... | 2·00 | 4·50 | 27·15 | 37·32 | 21·05 | 4·27 | 7·75 | 9·45 | 0·10 | 5·75 | 124·49 |
| 1844 | ... | 0·45 | 1·70 | 1·70 | 13·35 | 22·42 | 19·10 | 11·75 | 2·25 | 17·55 | 4·50 | 7·07 | 101 84 |
| 1845 | 3·52 | ... | 5·80 | 2·20 | 3·57 | 31·37 | 16·10 | 11·25 | 1·67 | 11·85 | 0·92 | 4·45 | 92·70 |
| 1846 | 0·02 | ... | 0·70 | 4·80 | 19·70 | 37·32 | 16·72 | 16·27 | 2·15 | 5·95 | 2·25 | 0·10 | 105·98 |
| 1847 to 1852 | Not on record. | | | | | | | | | | | | |
| 1853 | 0·80 | 0·95 | 17·90 | 1·65 | 12·45 | 39·85 | 20·25 | 5·30 | 11·30 | 3·60 | 3·30 | ... | 117·35 |
| 1854 | ... | 0·50 | 1·20 | 1 75 | 8·95 | 26·50 | 28·50 | 14·30 | 6·40 | 18·65 | 4·45 | 0·55 | 111·75 |
| 1855 to 1862 | Not on record. | | | | | | | | | | | | |

COCHIN—*continued*.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ? | ? | 1·20 | 3·17 | 12·01 | 24·62 | 21·53 | 16·02 | 4·19 | 17·54 | 0·67 | 2·94 | ? |
| 1864 | ... | ... | ... | 6·07 | 3·87 | 49·53 | 21·46 | 21·11 | 8·45 | 9·59 | 5·34 | ... | 125·42 |
| 1865 | ... | 0·63 | ... | 7·57 | 18·62 | 24·74 | 41·15 | 15·39 | 2·39 | 12·11 | 7·12 | 0·13 | 129·85 |
| 1866 | 4·14 | ... | ... | 4·50 | 0·62 | 19·10 | 27·10 | 10·58 | 6·66 | 5·94 | 9·81 | 1·49 | 89·94 |
| 1867 | ... | ... | 1·17 | 3·90 | 19·16 | 21·38 | 20·84 | 9·56 | 9·08 | 6·93 | 0·75 | 1·06 | 93·83 |
| 1868 | 0·92 | ... | 0·95 | 1·85 | 5·02 | 47·61 | 10·96 | 3·04 | 8·30 | 6·29 | 1·65 | ... | 86·59 |
| 1869 | ... | 2·19 | 0·27 | 9·42 | 5·52 | 32·26 | 17·90 | 8·27 | 19·50 | 12·91 | 5·60 | 5·15 | 118·99 |
| 1870 | 3·52 | 0·55 | 4·85 | 3·99 | 7·43 | 19·80 | 19·17 | 8·67 | 14·57 | 20·47 | 7·17 | 1·02 | 111·21 |
| 1871 | 2·07 | 3·10 | 0·80 | 5·00 | 15·12 | 26·05 | 26·55 | 10·80 | 4·60 | 8·03 | 9·47 | 1·15 | 112·74 |
| 1872 | ... | 1·03 | 0·12 | 8·75 | 6·82 | 28·22 | 19·52 | 11·70 | 20·72 | 13·77 | 7·62 | 2·57 | 120·84 |
| 1873 | ... | 3·82 | ... | 10·40 | 11·13 | 36·97 | 24·90 | 7·66 | 10·35 | 16·40 | 1·53 | 0·75 | 123·91 |
| 1874 | ... | 2·00 | 0·30 | 0·93 | 26·03 | 37·25 | 32·33 | 10·66 | 13·11 | 15·33 | 2·07 | 0·72 | 140·73 |
| 1875 | 0·70 | ... | 2·00 | 5·85 | 6·84 | 43·53 | 32·10 | 10·30 | 4·49 | 6·95 | 3·01 | 0·37 | 116·14 |
| 1876 | ... | 0·10 | 3·90 | 4·05 | 9·18 | 27·82 | 27·29 | 6·27 | 8·03 | 3·09 | 2·61 | ... | 92·34 |
| 1877 | ... | 1·42 | 2·09 | 11·24 | 6·44 | 43·96 | 14·01 | 12·08 | 15·97 | 23·33 | 8·21 | 5·20 | 143·95 |
| 1878 | 0·15 | ... | 2·00 | 5·54 | 6·79 | 40·40 | 16·71 | 29·38 | 22·48 | 14·18 | 6·69 | 6·70 | 151·02 |
| 1879 | 1·30 | 1·16 | 2·94 | 2·68 | 26·14 | 21·89 | 18·33 | 13·48 | 5·78 | 11·75 | 4·48 | 0·59 | 110·52 |
| 1880 | ... | 3·38 | 1·51 | 4·16 | 16·53 | 17·77 | 29·34 | 4·75 | 8·81 | 8·92 | 7·08 | 2·65 | 104·90 |
| 1881 | 0·38 | ... | 5·36 | 1·84 | 11·66 | 14·74 | 8·13 | 23·44 | 16·09 | 5·17 | 6·69 | 0·34 | 93·84 |
| 1882 | 3·83 | ... | 0·06 | 1·00 | 18·56 | 40·61 | 44·29 | 18·12 | 11·13 | 17·19 | 7·60 | 2·61 | 165·00 |
| 1883 | 1·31 | 0·10 | 3·53 | 3·24 | 17·86 | 32·61 | 24·32 | 13·32 | 4·21 | 13·21 | 7·37 | 1·85 | 122·93 |
| Mean | **1·03** | **0·79** | **2·23** | **4·46** | **12·91** | **31·10** | **22·62** | **12·48** | **9·31** | **11·42** | **4·70** | **1·97** | **115·02** |
| 1884 | ... | ... | 3·11 | 1·80 | 10·25 | 13·96 | 18·53 | 14·72 | 15·47 | 20·09 | 7·59 | 0·51 | 106·03 |
| 1885 | ... | 0·69 | 0·04 | 3·99 | 5·60 | 43·02 | 33·53 | 9·34 | 6·02 | 24·02 | 10·80 | 3·84 | 140·89 |
| 1886 | 0·42 | 0·03 | 0·06 | 5·15 | 17·20 | 25·00 | 17·42 | 10·98 | 10·65 | 11·18 | 8·20 | 0·68 | 106·97 |
| Mean | **0·94** | **0·74** | **2·11** | **4·38** | **12·73** | **30·73** | **22·67** | **12·40** | **9·44** | **12·10** | **5·11** | **1·94** | **115·29** |

No. 406. OOTAKAMUND.

Latitude N. 11° 24′. Longitude E. 76° 44′. Elevation 7,250 feet.

Administration : MADRAS.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1829 | ? | ? | ? | ? | ? | 9·88 | 5·34 | 6·11 | 4·21 | 10·77 | 1·64 | 4·73 | ? |
| 1830 | ... | 0·35 | 1·14 | 5·73 | 8·88 | 8·25 | 5·05 | 4·78 | 1·29 | 17·45 | 2·76 | 2·72 | 58·40 |
| 1831 | ... | 1·53 | 1·17 | 3·46 | 4·50 | 3·44 | 1·69 | 3·82 | 10·32 | 6·98 | 9·15 | 0·49 | 46·55 |
| 1832 | ... | ... | 1·78 | 2·24 | 5·02 | 4·44 | 5·01 | 1·31 | 9·62 | 3·89 | 0·53 | ... | 33·84 |
| 1833 | ... | ... | ... | 4·62 | 7·62 | ? | ? | ? | ? | ? | ? | ? | ? |
| 1834 to 1862 | Not on record. | | | | | | | | | | | | |

OOTAKAMUND—*continued.*

| Year. | Inches of Rain fall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1863 | ? | ? | 8·00 | 5·80 | 7·30 | 7·50 | 2·30 | 7·90 | 1·40 | 15·00 | 1·50 | 3·00 | 59·70 ? |
| 1864 | ... | ... | ... | 8·50 | 4·60 | 5·10 | 11·20 | 5·50 | 4·30 | 3·20 | 2·50 | ... | 44·06 |
| 1865 | ... | ... | ... | 2·50 | 13·80 | 1·90 | 7·00 | 1·80 | 2·90 | 0·50 | 3·00 | 1·30 | 43·70 |
| 1866 | ... | ... | ... | 2·00 | 4·10 | 6·60 | 1·90 | 2·00 | 1·05 | 14·00 | 1·00 | 3·80 | 36·45 |
| 1867 | ... | ... | 1·10 | 3·60 | 3·00 | 3·40 | 10·40 | 0·90 | 3·70 | 7·30 | 0·30 | ... | 33·70 |
| 1868 | 4·50 | ... | 0·10 | 1·20 | 3·80 | 10·46 | 7·35 | 7·89 | ... | 9·87 | ... | ... | 45·17 |
| 1869 to 1878 | Not on record. | | | | | | | | | | | | |
| 1879 | Ditto. | | | | | | | | | | 3·35 | 1·14 | ? |
| 1880 | 0·15 | ... | 0·06 | 2·99 | 5·12 | 4·85 | 4·02 | 4·39 | 2·19 | 9·79 | 9·07 | ? | 42·63 ? |
| Mean | 0·47 | 0·19 | 1·21 | 3·88 | 6·16 | 5·98 | 5·57 | 4·22 | 3·73 | 9·80 | 2·90 | 1·56 | 45·67 |

No. 407. JAFFNA.

Latitude N. 9° 40′. Longitude E. 79° 56′. Elevation 9 feet.

Administration: CEYLON.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | 2·83 | 0·50 | 1·42 | 2·50 | 1·66 | ... | 0·61 | ... | 4·76 | 3·76 | 10·38 | 8·59 | 37·01 |
| 1872 | 1·70 | 0·15 | 5·42 | 5·54 | 4·48 | 0·29 | 1·28 | 2·61 | 2·15 | 3·77 | 30·35 | 4·65 | 62·39 |
| 1873 | 0·60 | 5·98 | 0·28 | 3·78 | 1·81 | ... | ... | 1·39 | 1·77 | 11·97 | 18·52 | 4·48 | 50·58 |
| 1874 | 0·20 | 3·94 | ... | 3·66 | 2·84 | 3·82 | 0·63 | 0·04 | 4·37 | 4·76 | 10·30 | 10·29 | 44·85 |
| 1875 | 0·08 | ... | 0·83 | 2·62 | 1·99 | 0·40 | 0·06 | 1·06 | 4·95 | 7·04 | 11·25 | 4·01 | 34·29 |
| 1876 | 1·02 | ... | 0·40 | 0·56 | 3·51 | 0·94 | 0·38 | 3·06 | ... | 2·74 | 5·49 | 7·50 | 25·60 |
| 1877 | 0·09 | ... | 0·91 | 2·76 | 2·01 | ... | 2·17 | ... | 1·70 | 12·36 | 22·08 | 13·90 | 57·98 |
| 1878 | 5·45 | ... | 0·07 | 2·13 | 1·99 | ... | 0·05 | 1·26 | 4·36 | 4·70 | 7·70 | 4·48 | 32·19 |
| 1879 | 0·71 | 0·01 | 6·05 | 1·51 | ... | 0·10 | 1·72 | 3·94 | 1·66 | 6·07 | 7·08 | 8·80 | 37·05 |
| 1880 | 2·33 | 0·73 | 0·55 | 0·44 | ... | 0·17 | 0·06 | 0·68 | 3·05 | 9·54 | 13·55 | 5·97 | 37·07 |
| 1881 | 9·87 | 2·48 | 1·40 | ... | ... | 0·09 | ... | ... | 3·29 | 1·47 | 9·69 | 16·16 | 44·45 |
| 1882 | 0·77 | 0·05 | 0·34 | 2·89 | 1·80 | 0·53 | 0·24 | 2·38 | 2·60 | 12·51 | 27·27 | 17·84 | 69·22 |
| 1883 | 3·70 | 5·08 | 1·19 | 1·82 | 5·40 | ... | 0·10 | 0·76 | ... | 20·56 | 20·85 | 10·06 | 69·52 |
| Mean | 2·26 | 1·46 | 1·45 | 2·32 | 2·11 | 0·49 | 0·56 | 1·32 | 2·67 | 7·79 | 14·86 | 8·98 | 46·37 |
| 1884 | 0·80 | ... | ... | 2·15 | 1·54 | ... | 0·29 | 0·16 | 1·23 | 23·60 | 13·45 | 25·68 | 68·90 |
| 1885 | 1·35 | 0·20 | 0·33 | 0·48 | 3·36 | 8·48 | 0·01 | 0·11 | 6·06 | 17·73 | 20·46 | 10·17 | 68·74 |
| 1886 | 5·42 | 4·45 | ... | 0·02 | 4·67 | 1·28 | 3·14 | 1·37 | 3·02 | 5·74 | 8·48 | 5·10 | 42·69 |
| Mean | 2·31 | 1·47 | 1·20 | 2·05 | 2·32 | 1·01 | 0·67 | 1·18 | 2·81 | 9·27 | 14·81 | 9·86 | 48·96 |

No. 408. MANNAR.

Latitude N. 8° 59′. Longitude E. 79° 54′. Elevation 10 feet.

Administration: CEYLON.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1870 | ? | ? | ? | ? | ? | 0·84 | 0·92 | ... | ... | 9·04 | 4·72 | 4·86 | ? |
| 1871 | 8·93 | 1·74 | 1·33 | 5·71 | 1·09 | ? | ... | ... | 1·24 | 4·04 | 12·39 | 8·36 | 44·83 ? |
| 1872 | 1·07 | 0·33 | 1·95 | 5·37 | 3·39 | ... | 0·56 | 0·79 | 3·30 | 4·61 | 12·26 | 3·18 | 36·81 |
| 1873 | 0·01 | 2·56 | 0·53 | 2·46 | 3·74 | ... | 0·06 | 0·62 | ... | 4·29 | 8·37 | 4·19 | 26·83 |
| 1874 | 0·19 | 2·42 | 0·14 | 1·89 | 1·20 | 3·32 | 0·03 | 0·04 | 2·15 | 0·81 | 5·52 | 6·93 | 24·64 |
| 1875 | 1·47 | 0·03 | 1·19 | 1·05 | 1·94 | 2·29 | ... | 0·58 | 0·49 | 10·60 | 5·60 | 2·88 | 28·12 |
| 1876 | 2·07 | ... | 3·55 | 1·63 | 4·87 | ... | ... | 3·26 | ... | 3·38 | 2·34 | 6·03 | 27·13 |
| 1877 | ... | ... | 1·66 | 1·46 | 2·34 | 0·78 | 0·02 | ... | 0·86 | 6·32 | 7·17 | 17·94 | 38·55 |
| 1878 | 1·50 | ... | 1·29 | 7·31 | 6·89 | ... | 0·14 | 0·35 | 1·12 | 1·54 | 4·13 | 1·18 | 25·45 |
| 1879 | 0·73 | 0·76 | 7·38 | 0·62 | 3·24 | ... | ... | ... | 0·69 | 6·48 | 9·91 | 8·24 | 38·05 |
| 1880 | 2·30 | 0·25 | 6·32 | ... | ... | ... | ... | 0·58 | 0·12 | 9·18 | 18·11 | 5·15 | 42·01 |
| 1881 | 6·59 | 6·60 | 3·06 | 0·75 | ... | ... | ... | 0·10 | ... | 1·29 | 13·75 | 14·30 | 46·44 |
| 1882 | 2·58 | 2·47 | 0·78 | 2·48 | 1·97 | ... | ... | ... | 0·28 | 8·97 | 15·96 | 12·40 | 47·89 |
| 1883 | 6·30 | 10·61 | 0·11 | 0·70 | 8·84 | ... | ... | ... | ... | 18·28 | 11·60 | 6·07 | 62·51 |
| Mean | 2·60 | 2·14 | 2·25 | 2·42 | 3·04 | 0·56 | 0·12 | 0·45 | 0·73 | 6·35 | 9·42 | 7·27 | 37·35 |
| 1884 | 0·56 | ... | ... | 0·47 | 0·90 | ... | ... | ... | 0·04 | 18·97 | 22·68 | 13·99 | 57·56 |
| 1885 | 0·31 | 0·34 | 0·09 | ? | 4·85 | 5·53 | ... | ... | 0·91 | 23·72 | 14·89 | 11·55 | ? |
| 1886 | 5·31 | 2·01 | ... | 2·80 | 1·69 | ... | 2·44 | 4·68 | 2·57 | 5·44 | 11·48 | 3·57 | 41·99 |
| Mean | 2·50 | 1·88 | 1·84 | 2·31 | 2·88 | 0·80 | 0·25 | 0·65 | 0·81 | 8·06 | 10·64 | 7·70 | 40·32 |

No. 409. TRINCOMALEE.

Latitude N. 8° 33′. Longitude E. 81° 15′. Elevation 175 feet.

Administration: CEYLON.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1870 | 9·49 | 1·51 | 0·46 | 0·17 | 0·40 | ... | 3·62 | ? | ? | ? | ? | ? | ? |
| 1871 | 22·21 | 3·63 | 1·81 | 0·87 | 3·33 | ... | 1·01 | 2·77 | 6·77 | 8·82 | 13·93 | 9·39 | 74·54 |
| 1872 | 5·65 | 1·24 | 0·59 | 2·25 | 0·94 | 0·15 | 1·46 | 4·46 | 3·15 | 5·75 | 16·05 | 7·87 | 49·56 |
| 1873 | 0·58 | 7·42 | 1·24 | 9·36 | 4·81 | ... | 3·15 | 2·17 | 2·86 | 8·55 | 13·36 | 7·25 | 60·75 |
| 1874 | 2·13 | 2·76 | 2·04 | 0·08 | 2·53 | 2·27 | 5·15 | 3·31 | 10·20 | 8·18 | 9·73 | 13·18 | 61·56 |
| 1875 | 0·69 | 0·05 | 0·87 | 0·84 | 0·73 | 2·01 | 0·02 | 4·02 | 4·93 | 13·00 | 15·02 | 16·18 | 58·36 |
| 1876 | 4·67 | 0·77 | 0·98 | 2·51 | 2·10 | 3·22 | 3·77 | 9·90 | 0·73 | 5·92 | 10·54 | 9·93 | 55·04 |
| 1877 | 0·73 | .?. | 1·56 | 0·42 | 3·13 | 0·53 | 0·05 | 2·08 | 7·64 | 14·31 | 17·12 | 19·49 | 67·06 |
| 1878 | 23·90 | ... | 1·04 | 1·47 | 0·79 | 5·12 | 4·36 | 6·12 | 2·05 | 6·34 | 7·82 | 10·99 | 70·00 |
| 1879 | 1·82 | 5·31 | 4·97 | 0·76 | 2·16 | 0·02 | 5·01 | 2·12 | 2·29 | 4·79 | 9·84 | 9·39 | 48·48 |
| 1880 | 2·61 | 3·01 | 0·70 | 4·72 | 1·53 | 3·66 | 2·71 | 4·73 | 2·21 | 4·64 | 17·51 | 10·13 | 58·16 |
| 1881 | 7·82 | 1·34 | 0·33 | ... | 3·01 | 3·55 | 1·72 | 4·44 | 5·63 | 5·74 | 9·00 | 20·16 | 62·74 |
| 1882 | 2·30 | 1·61 | 1·45 | 0·95 | 1·78 | 1·34 | ... | 8·90 | 5·18 | 8·53 | 15·46 | 25·93 | 73·43 |
| 1883 | 7·90 | 8·14 | 2·50 | 0·70 | 4·61 | 6·46 | 0·11 | 1·36 | 4·37 | 12·65 | 21·49 | 8·16 | 78·45 |
| Mean | 6·61 | 2·63 | 1·47 | 1·79 | 2·28 | 2·02 | 2·30 | 4·34 | 4·46 | 8·25 | 13·61 | 12·93 | 62·69 |

TRINCOMALEE—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 0·89 | ... | ... | 0·27 | 0·86 | 1·65 | 0·84 | 2·62 | 7·07 | 17·64 | 9·38 | 16·66 | 57·88 |
| 1885 | 2·26 | 2·52 | 1·08 | 1·07 | 0·38 | 0·50 | ... | 2·18 | 6·10 | 12·65 | 12·05 | 14·44 | 55·23 |
| 1886 | 9·36 | 2·02 | 0·07 | 1·13 | 3·65 | 2·18 | 4·49 | 6·69 | 2·85 | 4·05 | 11·74 | 12·47 | 60·70 |
| Mean | 6·18 | 2·43 | 1·28 | 1·62 | 2·16 | 1·92 | 2·20 | 4·24 | 4·63 | 8·85 | 13·13 | 13·23 | 61·87 |

No. 410. BATTICALOA.

Latitude N. 7° 43′. Longitude E. 81° 44′. Elevation 21 feet.

Administration: CEYLON.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ? | 1·30 | 0·55 | 2·22 | ... | 3·58 | 0·06 | 4·60 | 1·96 | 3·31 | 3·00 | 6·31 | ? |
| 1871 | 20·47 | 3·68 | 7·18 | 0·68 | 0·55 | 0·57 | 2·15 | 3·12 | 0·68 | 3·42 | 19·93 | 17·97 | 80·40 |
| 1872 | 4·92 | 1·28 | 0·48 | 1·09 | 1·24 | 0·19 | 0·52 | 3·95 | 5·37 | 3·76 | 12·57 | 12·60 | 47·97 |
| 1873 | 1·64 | 8·64 | 4·78 | 4·01 | 3·10 | 0·11 | 0·37 | 0·23 | 0·73 | 4·19 | 23·10 | 7·06 | 58·06 |
| 1874 | 7·12 | 8·83 | 2·25 | ... | 0·05 | 2·09 | 0·77 | 3·02 | 2·92 | 6·48 | 8·83 | 11·59 | 53·95 |
| 1875 | 8·62 | 0·38 | 2·39 | 3·58 | 0·61 | 1·30 | .... | 4·94 | 0·79 | 9·58 | 12·06 | 11·79 | 56·04 |
| 1876 | 4·82 | 0·77 | 2·21 | 1·60 | 3·26 | 1·98 | 0·02 | 4·19 | 0·69 | 3·75 | 25·51 | 25·07 | 73·87 |
| 1877 | 1·24 | 1·70 | 5·12 | 1·35 | 2·47 | 0·06 | 0·03 | 0·84 | 4·01 | 8·60 | 15·35 | 19·68 | 60·45 |
| 1878 | 26·93 | 0·02 | 2·03 | 3·10 | 2·89 | 0·51 | 0·36 | 6·65 | 3·17 | 2·32 | 4·83 | 8·10 | 60·91 |
| 1879 | 5·86 | 1·91 | 5·08 | 0·75 | ... | 0·69 | 4·90 | 2·42 | 2·27 | 5·21 | 8·25 | 19·48 | 56·82 |
| 1880 | 5·34 | 3·25 | 8·92 | 1·30 | 2·38 | 1·16 | 0·44 | 1·29 | 1·47 | 5·00 | 12·63 | 8·58 | 51·76 |
| 1881 | 9·40 | 0·75 | 1·35 | 0·94 | 0·48 | 2·80 | 0·02 | 3·75 | 3·94 | 3·23 | 9·28 | 28·24 | 64·18 |
| 1882 | 5·04 | 8·95 | 4·95 | 0·99 | 2·22 | 1·58 | ... | 2·22 | 0·39 | 4·12 | 12·81 | 13·66 | 56·93 |
| 1883 | 10·12 | 10·06 | 0·72 | 0·14 | 3·12 | 1·99 | 0·74 | 0·37 | 0·54 | 10·06 | 18·65 | 12·20 | 68·71 |
| Mean | 8·58 | 3·68 | 3·43 | 1·55 | 1·60 | 1·33 | 0·74 | 2·98 | 2·07 | 5·22 | 13·34 | 14·45 | 58·97 |
| 1884 | 5·12 | 2·20 | 2·21 | 2·79 | 2·13 | 0·37 | ... | 1·06 | 2·03 | 7·65 | 8·77 | 25·07 | 59·40 |
| 1885 | 3·42 | 0·56 | 4·21 | 0·42 | 3·88 | 0·94 | 2·41 | ... | 2·75 | 6·75 | 9·76 | 26·83 | 61·93 |
| 1886 | 9·34 | 2·01 | 0·13 | 0·15 | 4·75 | 1·06 | 1·71 | 4·29 | 5·39 | 5·85 | 14·58 | 12·86 | 62·12 |
| Mean | 8·09 | 3·31 | 3·21 | 1·48 | 1·95 | 1·23 | 0·85 | 2·77 | 2·30 | 5·49 | 12·94 | 15·71 | 59·33 |

No. 411. HAMBANTOTA.

Latitude N. 6° 7′. Longitude E. 81° 7′. Elevation 40 feet.

Administration: CEYLON.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 7·18 | 3·48 | 1·02 | 0·65 | 0·05 | 1·00 | 0·18 | 2·78 | 0·53 | 4·51 | 7·66 | 3·25 | 32·29 |
| 1871 | 9·06 | 0·74 | 1·13 | 4·42 | 3·28 | 2·08 | 2·07 | 0·19 | 0·90 | 3·93 | 5·48 | 3·32 | 36·60 |
| 1872 | 1·47 | 2·80 | ... | 3·97 | 1·17 | 0·83 | 1·77 | 1·58 | 4·41 | 0·66 | 9·47 | 3·58 | 31·71 |
| 1873 | 0·40 | 8·75 | 3·73 | 3·28 | 1·86 | 0·46 | 0·34 | 1·02 | 0·27 | 0·82 | 6·76 | 2·83 | 30·52 |

HAMBANTOTA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1874 | 4·97 | 5·67 | 0·32 | 0·89 | 3·65 | 1·20 | 1·00 | 0·64 | 0·65 | 2·89 | 12·37 | 4·61 | 38·86 |
| 1875 | 2·48 | 1·50 | 2·76 | 1·96 | 0·73 | 6·24 | 0·21 | 1·39 | 1·16 | 1·98 | 7·61 | 5·07 | 33·09 |
| 1876 | 1·01 | 0·04 | 2·52 | 0·69 | 5·77 | 0·74 | 1·46 | 1·21 | 1·99 | 8·57 | 5·41 | 3·75 | 33·16 |
| 1877 | ... | 0·06 | 2·09 | 2·28 | 11·05 | 6·42 | 0·91 | 4·24 | 17·78 | 22·20 | 5·92 | 10·67 | 83·62 |
| 1878 | 9·19 | 0·02 | 4·72 | 3·15 | 3·72 | 2·85 | 2·46 | 6·42 | 3·61 | 8·48 | 2·07 | 1·36 | 48·05 |
| 1879 | 0·79 | 1·76 | 2·16 | 0·94 | 5·48 | 1·66 | 2·92 | ... | 1·80 | 1·45 | 0·76 | 7·13 | 26·85 |
| 1880 | 0·78 | 0·63 | 1·73 | 1·73 | 2·56 | 0·41 | 0·30 | 0·01 | 0·06 | 2·14 | 7·51 | 1·58 | 19·44 |
| 1881 | 1·53 | 0·66 | 2·85 | 3·03 | 1·17 | 0·51 | 0·60 | 1·49 | 3·98 | 6·89 | 9·81 | 4·11 | 36·63 |
| 1882 | 6·50 | 1·60 | 5·30 | 0·03 | 4·48 | 1·92 | 2·60 | 1·22 | 0·03 | 3·15 | 3·83 | 1·32 | 31·98 |
| 1883 | 6·11 | 0·79 | 2·52 | 1·30 | 5·15 | 2·54 | 2·11 | 0·76 | 0·87 | 7·54 | 4·67 | 0·07 | 34·43 |
| Mean | 3·68 | 2·04 | 2·35 | 2·02 | 3·58 | 2·06 | 1·35 | 1·64 | 2·72 | 5·37 | 6·38 | 3·78 | 36·95 |
| 1884 | 0·84 | 0·02 | 0·48 | 0·97 | 2·22 | 0·54 | 0·50 | 0·23 | 0·04 | 6·18 | 7·06 | 7·66 | 26·74 |
| 1885 | 2·29 | 1·71 | 0·45 | 0·52 | 2·45 | 4·77 | 0·48 | 0·62 | 2·60 | 3·02 | 7·68 | 6·69 | 33·28 |
| 1886 | 2·21 | 0·91 | 1·89 | 1·71 | 9·10 | 1·86 | 1·43 | 1·57 | 2·63 | 2·66 | 9·59 | 5·68 | 41·24 |
| Mean | 3·34 | 1·83 | 2·10 | 1·85 | 3·76 | 2·12 | 1·26 | 1·49 | 2·55 | 5·12 | 6·69 | 4·28 | 36·39 |

No. 412. GALLE.

Latitude N. 6° 1′. Longitude E. 80° 14′. Elevation 48 feet.

Administration: CEYLON.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 3·65 | 0·79 | 2·41 | 4·10 | 5·21 | 4·41 | 1·36 | 3·86 | 8·39 | 23·63 | 5·75 | 4·05 | 67·61 |
| 1871 | 6·75 | 1·45 | 5·52 | 10·28 | 8·68 | 9·31 | 3·42 | 4·12 | 3·93 | 6·58 | 8·89 | 8·50 | 77·43 |
| 1872 | 5·67 | 3·06 | 1·02 | 9·68 | 2·22 | 4·35 | 3·14 | 5·61 | 9·59 | 2·92 | 20·63 | 8·17 | 76·06 |
| 1873 | 0·48 | 8·06 | 5·69 | 6·28 | 12·52 | 8·13 | 4·69 | 2·32 | 0·79 | 5·87 | 12·21 | 6·75 | 73·79 |
| 1874 | 3·74 | 6·59 | 3·45 | 3·96 | 13·34 | 8·14 | 5·82 | 2·23 | 4·36 | 11·85 | 13·71 | 5·96 | 83·15 |
| 1875 | 0·54 | 2·60 | 5·81 | 11·22 | 15·84 | 17·46 | 3·93 | 5·76 | 5·23 | 17·13 | 7·73 | 5·55 | 98·80 |
| 1876 | 2·57 | 3·16 | 3·28 | 11·92 | 16·28 | 7·89 | 5·56 | 1·63 | 5·56 | 17·07 | 3·12 | 8·20 | 86·24 |
| 1877 | 1·46 | 0·29 | 8·48 | 7·20 | 18·81 | 8·25 | 3·14 | 12·83 | 32·58 | 19·80 | 13·95 | 12·78 | 139·57 |
| 1878 | 12·76 | 1·17 | 5·10 | 7·43 | 12·67 | 18·26 | 11·68 | 14·82 | 10·43 | 18·39 | 6·18 | 3·66 | 122·55 |
| 1879 | 5·73 | 2·36 | 8·98 | 18·48 | 10·79 | 7·04 | 10·34 | 1·91 | 6·04 | 6·39 | 16·37 | 7·83 | 102·26 |
| 1880 | 0·65 | 7·01 | 7·91 | 10·29 | 10·31 | 1·36 | 4·59 | 1·30 | 1·84 | 8·83 | 11·19 | 5·91 | 71·19 |
| 1881 | 3·57 | 3·03 | 5·25 | 10·13 | 4·88 | 4·05 | 1·86 | 9·04 | 8·72 | 9·09 | 16·92 | 5·79 | 82·33 |
| 1882 | 7·59 | 8·38 | 4·10 | 4·58 | 16·88 | 6·55 | 8·98 | 7·59 | 3·31 | 15·37 | 7·19 | 3·49 | 94·01 |
| 1883 | 5·57 | 3·41 | 3·32 | 11·75 | 10·66 | 5·40 | 8·43 | 6·05 | 6·00 | 10·32 | 19·65 | 4·50 | 95·06 |
| Mean | 4·34 | 3·67 | 5·02 | 9·09 | 11·36 | 7·90 | 5·50 | 5·65 | 7·63 | 12·37 | 11·68 | 6·51 | 90·32 |
| 1884 | 3·91 | 0·43 | 4·96 | 9·56 | 8·43 | 7·54 | 4·11 | 4·67 | 6·19 | 11·90 | 8·09 | 4·15 | 71·94 |
| 1885 | 4·04 | 2·72 | 3·96 | 2·30 | 9·44 | 14·88 | 4·69 | 2·10 | 8·74 | 23·92 | 15·21 | 5·15 | 97·15 |
| 1886 | 6·19 | 1·04 | 1·99 | 9·47 | 20·01 | 6·29 | 11·50 | 3·34 | 7·71 | 11·86 | 8·66 | 12·86 | 100·92 |
| Mean | 4·40 | 3·27 | 4·66 | 8·74 | 11·59 | 8·19 | 5·72 | 5·25 | 7·61 | 13·00 | 11·50 | 6·66 | 90·59 |

No. 413. COLOMBO.

Latitude N. 6° 56′. Longitude E. 79° 52′. Elevation 40 feet.

Administration: CEYLON.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1870 | 4·24 | 0·51 | 13·55 | 8·13 | 7·87 | 3·36 | 2·73 | 4·57 | 4·81 | 36·23 | 17·05 | 4·84 | 107·89 |
| 1871 | 3·60 | 0·70 | 7·01 | 8·44 | 8·64 | 6·21 | 2·61 | 1·38 | 1·77 | 7·30 | 11·16 | 6·27 | 65·09 |
| 1872 | 1·21 | 1·19 | 5·98 | 10·59 | 4·34 | 2·09 | 1·34 | 4·09 | 8·55 | 2·82 | 17·27 | 2·57 | 62·04 |
| 1873 | 0·04 | 4·30 | 7·23 | 6·98 | 25·94 | 6·59 | 4·41 | 2·07 | 1·32 | 11·98 | 9·56 | 5·20 | 85·02 |
| 1874 | 2·23 | 5·18 | 1·66 | 3·12 | 12·34 | 4·90 | 2·95 | 1·16 | 1·07 | 10·24 | 9·10 | 3·08 | 57·03 |
| 1875 | 0·31 | ... | 4·68 | 19·11 | 12·22 | 15·93 | 2·94 | 3·30 | 6·53 | 9·82 | 14·46 | 3·27 | 89·57 |
| 1876 | 4·82 | ... | 5·41 | 16·28 | 24·27 | 5·25 | 2·20 | 0·15 | 1·76 | 19·21 | 2·01 | 5·15 | 86·51 |
| 1877 | 1·84 | 0·20 | 2·66 | 4·66 | 10·80 | 13·61 | 3·32 | 5·62 | 21·80 | 10·15 | 13·46 | 17·72 | 105·84 |
| 1878 | 12·57 | 0·14 | 0·84 | 4·23 | 22·09 | 19·96 | 28·04 | 19·54 | 6·55 | 16·98 | 4·37 | 4·39 | 139·70 |
| 1879 | 2·29 | 4·09 | 9·36 | 14·47 | 10·58 | 5·95 | 7·10 | 0·67 | 1·03 | 9·38 | 13·67 | 5·73 | 84·32 |
| 1880 | 5·79 | 4·51 | 9·18 | 15·40 | 6·43 | 0·63 | 2·95 | 0·94 | 1·13 | 3·45 | 17·84 | 3·15 | 71·40 |
| 1881 | 3·42 | 1·12 | 4·34 | 9·60 | 6·38 | 2·49 | 2·21 | 6·17 | 7·28 | 9·71 | 28·78 | 8·57 | 90·07 |
| 1882 | 2·81 | 3·58 | 2·36 | 2·62 | 12·78 | 6·61 | 12·89 | 2·28 | 2·14 | 11·72 | 11·58 | 8·26 | 79·03 |
| 1883 | 2·34 | 1·69 | 5·61 | 8·83 | 18·62 | 11·71 | 3·16 | 17·86 | 3·30 | 14·05 | 9·12 | 7·32 | 103·61 |
| Mean | 3·39 | 1·94 | 5·71 | 9·46 | 13·09 | 7·52 | 5·63 | 4·89 | 4·72 | 12·36 | 12·82 | 6·11 | 87·74 |
| 1884 | 0·06 | 0·90 | 3·84 | 5·35 | 10·31 | 7·39 | 2·11 | 1·91 | 5·54 | 13·51 | 17·73 | 14·30 | 82·95 |
| 1885 | 1·74 | 0·75 | 5·71 | 3·60 | 9·22 | 18·82 | 4·16 | 2·66 | 3·97 | 16·12 | 12·53 | 6·30 | 85·58 |
| 1886 | 2·43 | 0·29 | 3·88 | 7·26 | 22·28 | 8·32 | 7·87 | 1·74 | 8·07 | 16·07 | 6·45 | 2·35 | 87·01 |
| Mean | 3·04 | 1·71 | 5·49 | 8·75 | 13·24 | 8·22 | 5·47 | 4·48 | 4·92 | 12·87 | 12·71 | 6·38 | 87·28 |

No. 414. PUTTALAM.

Latitude N. 8° 2′. Longitude E. 79° 50′. Elevation 15 feet.

Administration: CEYLON.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1870 | 4·05 | 0·98 | 2·75 | 1·42 | 0·18 | 0·52 | ... | 3·12 | 0·13 | 11·53 | 9·05 | 4·84 | 38·57 |
| 1871 | 8·56 | 1·57 | 4·12 | 11·57 | 1·26 | 0·38 | ... | 0·02 | ... | 4·03 | 10·06 | 4·84 | 46·41 |
| 1872 | 0·45 | 1·44 | 0·76 | 11·96 | 1·50 | 0·24 | 0·11 | 0·08 | 1·74 | 1·99 | 14·97 | 8·78 | 44·02 |
| 1873 | 0·36 | 3·05 | 4·24 | 6·50 | 5·80 | 0·82 | 0·05 | 0·60 | ... | 2·61 | 8·84 | 5·02 | 37·89 |
| 1874 | 1·70 | 2·02 | 0·59 | 1·11 | 3·70 | 0·19 | ... | 0·53 | 0·02 | 3·80 | 11·86 | 8·02 | 33·54 |
| 1875 | 0·43 | 1·64 | 5·75 | 11·14 | 0·18 | 7·24 | ... | ... | ... | 7·84 | 8·90 | 6·54 | 49·66 |
| 1876 | 0·45 | ... | 1·18 | 11·98 | 4·61 | 0·70 | ... | ... | 0·18 | 7·99 | 2·58 | 5·83 | 35·50 |
| 1877 | 0·29 | ... | 6·30 | 6·70 | 7·21 | 3·40 | 0·16 | 2·47 | 8·31 | 10·17 | 19·25 | 17·37 | 81·63 |
| 1878 | 3·58 | ... | 1·76 | 8·67 | 8·56 | 1·45 | 4·86 | 2·97 | 1·67 | 5·86 | 3·49 | 0·74 | 43·61 |
| 1879 | 0·41 | 2·07 | 8·66 | ... | 5·37 | 0·54 | ... | ... | 3·15 | 9·85 | 14·12 | ... | 44·47 |
| 1880 | ... | ... | ... | 0·62 | ... | ... | ... | 0·35 | ... | ... | 20·78 | 6·07 | 27·82 |
| 1881 | 2·25 | 1·36 | 5·14 | P | P | P | ... | P | ... | 6·24 | 9·67 | 6·47 | P |
| 1882 | 1·99 | 4·68 | ... | 5·60 | 4·44 | 3·94 | 0·74 | 0·74 | ... | 1·97 | 6·19 | P | P |
| 1883 | ... | 2·51 | 1·64 | 3·10 | 12·88 | 0·48 | ... | 1·61 | P | 8·04 | 10·65 | 0·50 | P |
| Mean | 1·75 | 1·52 | 3·06 | 6·18 | 4·28 | 1·53 | 0·42 | 0·96 | 1·17 | 5·85 | 10·77 | 5·97 | 43.26 |

PUTTALAM—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 2·70 | ... | 0·22 | 3·54 | 6·17 | ... | 0·22 | ... | 0·28 | 12·99 | 11·38 | 4·12 | 41·62 |
| 1885 | P | 1·44 | 2·05 | 0·33 | 1·60 | 5·57 | 1·34 | 2·97 | 0·70 | 16·21 | 17·91 | 5·20 | P |
| 1886 | 2·54 | 2·50 | 0·20 | 3·81 | 4·62 | 2·63 | 0·79 | 0·64 | 4·32 | 7·31 | 5·04 | 4·12 | 38·52 |
| Mean | 1·86 | 1·49 | 2·67 | 5·50 | 4·26 | 1·76 | 0·49 | 1·01 | 1·28 | 6·97 | 10·88 | 5·53 | 43·70 |

No. 415. RATNAPURA,

Latitude N. 6° 42′. Longitude E. 80° 25′. Elevation 109 feet.

Administration: CEYLON.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 12·51 | 8·09 | 11·68 | 5·32 | 16·62 | 14·90 | 5·84 | 20·58 | 20·70 | 23·72 | 11·84 | 8·89 | 160·69 |
| 1871 | 8·97 | 5·75 | 6·32 | 14·43 | 13·62 | 21·33 | 16·51 | 8·97 | 19·29 | 11·17 | 15·40 | 7·71 | 149·47 |
| 1872 | 5·38 | 6·39 | 3·06 | 17·12 | 7·16 | 17·83 | 9·04 | 7·67 | 43·42 | 10·99 | 19·85 | 3·74 | 151·65 |
| 1873 | 0·31 | 3·91 | 8·99 | 5·61 | 23·05 | 18·47 | 10·84 | 3·53 | 4·24 | 20·35 | 11·53 | 9·17 | 120·00 |
| 1874 | 9·04 | 3·64 | 3·45 | 13·08 | 14·09 | 20·01 | 20·18 | 9·57 | 12·01 | 22·54 | 10·91 | 10·82 | 149·34 |
| 1875 | 3·04 | 1·77 | 11·83 | 12·15 | 10·84 | 31·57 | 7·09 | 15·48 | 11·80 | 10·58 | 20·49 | 5·46 | 141·60 |
| 1876 | 3·69 | 0·39 | 5·61 | 11·68 | 25·87 | 25·41 | 10·25 | 7·49 | 5·28 | 13·65 | 6·32 | 8·35 | 123·99 |
| 1877 | 1·61 | 2·98 | 7·74 | 12·74 | 28·16 | 31·27 | 5·89 | 19·72 | 15·30 | 12·39 | 25·65 | 14·53 | 177·98 |
| 1878 | 11·02 | 0·14 | 10·55 | 14·94 | 20·44 | 33·03 | 18·84 | 25·94 | 17·99 | 23·40 | 7·87 | 6·70 | 190·86 |
| 1879 | 1·19 | 5·31 | 7·11 | 7·06 | 16·54 | 16·08 | 24·02 | 5·95 | 8·62 | 13·86 | 16·13 | 5·98 | 127·85 |
| 1880 | 0·53 | 8·24 | 12·77 | 10·47 | 31·71 | 4·12 | 10·47 | 11·01 | 3·60 | 28·31 | 16·00 | 10·31 | 147·54 |
| 1881 | 2·62 | 4·60 | 5·00 | 21·26 | 11·36 | 15·53 | 5·24 | 19·39 | 18·65 | 16·56 | 18·30 | 17·85 | 156·36 |
| 1882 | 6·50 | 5·62 | 7·05 | 6·93 | 18·85 | 14·49 | 14·92 | 23·93 | 6·93 | 24·76 | 14·95 | 4·60 | 149·53 |
| 1883 | 8·00 | 6·80 | 9·71 | 13·88 | 27·92 | 16·51 | 10·23 | 18·78 | 14·54 | 21·27 | 13·71 | 9·02 | 170·37 |
| Mean | 5·32 | 4·55 | 7·92 | 11·91 | 18·98 | 20·04 | 12·10 | 14·14 | 14·46 | 18·11 | 14·93 | 8·80 | 151·26 |
| 1884 | 0·84 | 2·07 | 21·52 | 9·69 | 15·59 | 13·65 | 7·81 | 11·36 | 11·77 | 25·40 | 9·86 | 10·86 | 140·42 |
| 1885 | 3·91 | 5·60 | 9·59 | 8·25 | 9·49 | 27·25 | 12·86 | 7·11 | 14·54 | 22·28 | 22·83 | 8·89 | 152·60 |
| 1886 | 9·11 | 1·67 | 4·48 | 10·83 | 24·03 | 17·80 | 17·64 | 16·39 | 21·43 | 10·59 | 8·87 | 2·12 | 144·96 |
| Mean | 5·19 | 4·29 | 8·62 | 11·50 | 18·52 | 19·96 | 12·22 | 13·70 | 14·71 | 18·34 | 14·74 | 8·53 | 150·32 |

No. 416. NEWERA ELIYA

Latitude N. 6° 59′. Longitude E. 80° 47′. Elevation 6,150 feet.

Administration: CEYLON.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 14·87 | 1·61 | 1·47 | 5·14 | 2·35 | 10·02 | 4·93 | 6·13 | 9·56 | 9·92 | 4·98 | 4·40 | 75·38 |
| 1871 | 17·58 | 1·80 | 2·98 | 8·69 | 5·82 | 12·14 | 17·36 | 5·80 | 7·23 | 6·78 | 10·78 | 4·32 | 101·28 |
| 1872 | 1·32 | 0·86 | 1·36 | 6·37 | 6·52 | 17·41 | 7·36 | 7·95 | 34·50 | 7·91 | 10·88 | 4·57 | 107·01 |
| 1873 | 1·90 | 7·96 | 2·99 | 6·07 | 8·83 | 27·85 | 18·27 | 7·56 | 2·60 | 7·78 | 6·30 | 3·40 | 104·51 |

NEWERA ELIYA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1874 | 3·21 | P | P | P | 9·56 | 13·01 | 13·02 | 5·66 | 10·29 | 15·93 | 9·14 | 2·87 | P |
| 1875 | 2·52 | 1·22 | 5·84 | 8·63 | 1·92 | 12·93 | 11·47 | 6·31 | 4·80 | 7·47 | 12·55 | 10·07 | 85·79 |
| 1876 | 3·65 | 0·12 | 0·69 | 7·23 | 11·70 | 12·25 | 17·21 | 6·47 | 4·69 | 5·90 | 8·74 | 8·35 | 87·00 |
| 1877 | 0·79 | 3·02 | 2·71 | 1·60 | 20·71 | 19·46 | 2·73 | 8·35 | 12·28 | 19·82 | 16·79 | 20·54 | 128·80 |
| 1878 | 15·48 | 0·03 | 2·70 | 5·36 | 5·91 | 22·17 | 20·30 | 11·12 | 9·81 | 10·22 | 5·25 | 3·03 | 111·38 |
| 1879 | 2·99 | 1·80 | 5·14 | 4·43 | 15·79 | 14·77 | 9·94 | 5·53 | 8·42 | 8·59 | 9·08 | 6·53 | 93·01 |
| 1880 | 2·06 | 5·38 | 6·21 | 9·34 | P | 3·98 | 20·05 | 7·22 | 3·96 | 13·88 | 7·76 | 11·10 | P |
| 1881 | 6·82 | 0·86 | 2·25 | 2·84 | 2·33 | 16·06 | 6·44 | 17·83 | 10·98 | 9·57 | 11·99 | 18·07 | 106·04 |
| 1882 | 5·63 | 5·06 | 2·81 | 2·16 | 6·13 | 16·33 | 34·99 | 20·78 | 5·30 | 13·55 | 10·56 | 6·00 | 129·30 |
| 1883 | 4·90 | 5·45 | 3·42 | 7·72 | 13·10 | 7·35 | 19·86 | 14·27 | 4·06 | 8·45 | 7·97 | 5·17 | 101·72 |
| Mean | 5·98 | 2·71 | 3·12 | 6·04 | 8·51 | 14·70 | 14·57 | 9·36 | 9·18 | 10·41 | 9·48 | 7·74 | 101·80 |
| 1884 | 1·49 | 0·24 | 3·19 | 3·17 | 5·01 | 4·88 | 7·08 | 10·64 | 6·17 | 12·64 | 9·61 | 12·30 | 76·42 |
| 1885 | 3·09 | 2·83 | 0·93 | 3·14 | 4·86 | 21·58 | 11·39 | 3·84 | 4·54 | 9·29 | 7·59 | 8·45 | 81·53 |
| 1886 | 6·70 | 1·39 | 2·82 | 4·45 | 11·24 | 12·37 | 11·25 | 13·63 | 11·27 | 11·09 | 5·73 | 5·39 | 97·34 |
| Mean | 5·59 | 2·48 | 2·97 | 5·58 | 8·24 | 14·39 | 13·74 | 9·36 | 8·86 | 10·52 | 9·16 | 7·92 | 98·81 |

No. 417. KANDY.

Latitude N. 7° 18′. Longitude E. 80° 40′. Elevation 1,696 feet.

Administration: CEYLON.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 11·26 | 5·45 | 2·62 | 4·02 | 0·98 | 6·47 | 2·39 | 7·50 | 9·40 | 10·71 | 6·12 | 2·74 | 69·66 |
| 1871 | 16·79 | 2·88 | 3·90 | 7·86 | 4·18 | 8·08 | 15·48 | 3·37 | 2·51 | 9·28 | 11·56 | 4·53 | 90·42 |
| 1872 | 1·38 | 8·32 | 0·45 | 12·06 | 4·32 | 11·58 | 4·00 | 2·45 | 18·38 | 10·80 | 16·38 | 7·33 | 97·45 |
| 1873 | 1·28 | 5·54 | 2·55 | 6·63 | 7·49 | 11·92 | 7·80 | 4·64 | 3·29 | 7·19 | 5·07 | 8·09 | 71·49 |
| 1874 | 2·54 | 3·42 | 2·02 | 6·37 | 8·61 | 10·63 | 8·59 | 3·26 | 6·04 | 10·20 | 13·45 | 4·02 | 79·15 |
| 1875 | 4·84 | 0·04 | 3·43 | 15·51 | 1·22 | 10·66 | 4·29 | 3·77 | 5·96 | 7·33 | 13·02 | 7·50 | 77·57 |
| 1876 | 2·15 | 0·01 | 0·17 | 8·76 | 5·38 | 6·23 | 8·49 | 2·74 | 4·79 | 8·12 | 13·08 | 11·10 | 71·02 |
| 1877 | 0·43 | 0·19 | 3·92 | 7·13 | 10·90 | 11·18 | 3·69 | 4·79 | 3·85 | 13·15 | 22·53 | 17·64 | 99·40 |
| 1878 | 9·15 | ... | 0·82 | 7·15 | 4·95 | 9·84 | 10·78 | 5·01 | 8·33 | 7·65 | 10·78 | 1·03 | 75·19 |
| 1879 | 3·14 | 5·08 | 9·00 | 4·07 | 12·30 | 7·13 | 10·69 | 5·40 | 5·15 | 11·05 | 10·29 | 12·07 | 95·37 |
| 1880 | 3·00 | 3·42 | 5·54 | 4·50 | 5·33 | 1·83 | 7·62 | 7·00 | 3·12 | 14·93 | 12·21 | 4·83 | 73·33 |
| 1881 | 6·08 | 1·81 | 1·47 | 9·93 | 1·55 | 13·21 | 2·75 | 11·44 | 4·92 | 15·58 | 11·39 | 21·93 | 102·07 |
| 1882 | 10·87 | 1·88 | 2·62 | 4·78 | 8·05 | 9·53 | 13·92 | 13·87 | 4·77 | 14·57 | 12·74 | 13·52 | 111·12 |
| 1883 | 1·69 | 3·39 | 2·63 | 6·26 | 14·25 | 6·22 | 5·95 | 7·57 | 1·38 | 10·31 | 8·92 | 5·46 | 74·03 |
| Mean | 5·33 | 2·96 | 2·94 | 7·50 | 6·39 | 8·87 | 7·60 | 5·92 | 5·85 | 10·78 | 11·97 | 8·70 | 84·81 |
| 1884 | 1·21 | 0·97 | 2·61 | 4·00 | 9·94 | 3·18 | 3·83 | 5·84 | 1·45 | 17·44 | 8·90 | 7·64 | 67·01 |
| 1885 | 0·43 | 0·64 | 4·67 | 3·54 | 4·20 | 16·53 | 11·88 | 4·93 | 5·76 | 14·56 | 13·96 | 9·68 | 90·78 |
| 1886 | 9·28 | 1·33 | 3·84 | 5·34 | 11·04 | 10·23 | 11·11 | 12·70 | 10·11 | 8·86 | 6·69 | 3·39 | 93·92 |
| Mean | 5·03 | 2·61 | 3·07 | 6·94 | 6·75 | 9·07 | 7·84 | 6·25 | 5·84 | 11·28 | 11·59 | 8·38 | 84·65 |

No. 418. ANURADHAPURA.
Latitude N. 8° 22′. Longitude E. 80° 22′. Elevation 302 feet.
Administration: CEYLON.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | P | P | P | P | P | 4·29 | ... | 3·66 | 3·25 | 2·05 | 5·45 | 7·63 | P |
| 1871 | 11·29 | 3·71 | 2·87 | 13·24 | 2·14 | ... | ... | 1·82 | 1·82 | 4·81 | 19·15 | 7·29 | 68·14 |
| 1872 | 1·49 | 0·27 | 2·87 | 9·89 | 3·05 | 0·03 | 0·17 | 0·11 | 7·10 | 3·67 | 17·41 | 2·96 | 49·02 |
| 1873 | 0·20 | 2·90 | 1·11 | 4·51 | 3·42 | 0·40 | 0·03 | 4·49 | ... | 4·53 | 6·12 | 4·87 | 32·58 |
| 1874 | 1·29 | 3·38 | 1·21 | 5·41 | 3·06 | 0·12 | ... | 6·24 | 7·84 | 2·65 | 7·60 | 7·17 | 45·97 |
| 1875 | 0·69 | 0·02 | 3·42 | 8·45 | 3·96 | 5·27 | 0·03 | 2·01 | 2·82 | 10·60 | 11·27 | 8·27 | 56·81 |
| 1876 | 1·86 | 0·37 | 3·09 | 5·42 | 3·81 | 0·52 | 0·03 | 2·75 | 4·42 | 4·57 | 5·28 | 4·62 | 36·74 |
| 1877 | 0·25 | ... | 4·61 | 9·01 | 4·52 | 1·03 | 0·05 | 0·44 | 2·89 | 10·69 | 18·35 | 20·56 | 72·40 |
| 1878 | 7·46 | ... | 1·86 | 10·32 | 4·34 | 0·38 | 3·21 | 0·35 | 1·17 | 5·24 | 11·31 | 3·76 | 49·40 |
| 1879 | 1·72 | 1·02 | 7·41 | 3·73 | 4·36 | ... | 7·14 | 3·53 | 2·51 | ... | 15·07 | 7·64 | 54·13 |
| 1880 | 3·85 | 1·14 | 6·91 | 7·11 | 0·03 | 0·04 | ... | 1·22 | 0·02 | 9·54 | 16·81 | 4·03 | 50·70 |
| 1881 | 5·35 | 0·03 | 1·57 | 6·62 | 2·99 | 0·22 | 0·40 | 0·44 | 4·18 | 3·37 | 12·21 | 12·27 | 49·65 |
| 1882 | 5·23 | 2·28 | 3·05 | 3·17 | 2·93 | 1·78 | 0·42 | 5·87 | 0·02 | 8·24 | 8·88 | 20·36 | 62·23 |
| 1883 | 1·94 | 5·58 | 3·01 | 6·80 | 7·02 | 3·41 | 0·76 | 4·55 | ... | 12·03 | 16·48 | 8·28 | 69·86 |
| Mean | 3·28 | 1·59 | 3·31 | 7·21 | 3·51 | 1·25 | 0·87 | 2·68 | 2·72 | 5·86 | 12·24 | 8·55 | 53·07 |
| 1884 | 0·37 | ... | 0·76 | 5·65 | 3·94 | 1·28 | ... | 0·12 | 4·11 | 15·59 | 15·21 | 8·36 | 55·39 |
| 1885 | 0·75 | 0·37 | 4·73 | 9·45 | 8·79 | 7·29 | ... | 0·05 | 4·46 | 15·69 | 16·24 | 11·63 | 79·45 |
| 1886 | 0·58 | 1·08 | 0·77 | 7·31 | 4·46 | 2·92 | 3·78 | 5·87 | 6·00 | P | 6·33 | 2·52 | P |
| Mean | 2·77 | 1·38 | 3·08 | 7·26 | 3·93 | 1·70 | 0·94 | 2·56 | 3·09 | 7·08 | 13·07 | 8·37 | 55·23 |

No. 419. AKYAB.
Latitude N. 20° 28′. Longitude E. 92° 57′. Elevation 15 feet.
Administration: BURMA. Rainfall Province No. XXII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1849 | P | P | P | P | P | P | P | 34·25 | 19·50 | 2·00 | 0·80 | 0·20 | P |
| 1850 | 1·50 | 0·10 | ... | 0·10 | 3·95 | 66·90 | 44·67 | 57·75 | 48·20 | 26·45 | 4·50 | ... | 254·12 |
| 1851 | ... | ... | ... | ... | 11·69 | 59·10 | 28·87 | 27·32 | 17·11 | 14·85 | ... | 2·10 | 155·04 |
| 1852 | ... | ... | 2·54 | ... | P | P | P | P | P | P | P | P | P |
| 1853 to 1859 | Not on record. | | | | | | | | | | | | |
| 1860 | ... | ... | ... | P | 6·70 | 97·60 | 47·10 | 46·20 | P | 27·60 | 22·30 | ... | P |
| 1861 | ... | ... | 0·50 | 1·70 | 45·10 | 63·00 | 53·90 | 30·10 | 16·20 | 21·80 | ... | 0·25 | 232·55 |
| 1862 | ... | ... | 0·50 | 5·70 | 13·70 | 72·60 | 56·50 | 55·70 | 18·60 | 23·70 | ... | ... | 247·00 |
| 1863 | ... | ... | ... | 3·40 | 7·10 | 80·00 | 50·80 | 57·60 | 19·20 | 14·60 | 8·20 | ... | 240·90 |
| 1864 | ... | 3·60 | 2·10 | ... | 3·80 | 54·50 | 87·50 | 30·70 | 53·80 | 15·80 | 0·10 | ... | 221·90 |
| 1865 | ... | ... | ... | 2·40 | 30·30 | 35·20 | 58·30 | 24·10 | 26·90 | 9·00 | 5·10 | ... | 191·30 |
| 1866 | ... | 0·40 | 0·70 | 0·20 | 2·00 | 37·20 | 29·60 | 46·70 | 21·10 | 7·30 | 0·60 | ... | 145·80 |
| 1867 | 0·80 | ... | ... | ... | 23·70 | 38·40 | 78·50 | 25·64 | 26·52 | 1·38 | 12·59 | ... | 207·53 |
| 1868 | ... | ... | 0·22 | 1·94 | 8·10 | 61·95 | 44·14 | 36·19 | 21·65 | 12·17 | 8·23 | ... | 189·59 |
| 1869 | 0·10 | 0·05 | ... | 1·04 | 6·26 | 57·58 | 52·93 | 33·86 | 25·45 | 6·63 | ... | 0·06 | 183·96 |

AKYAB—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ... | ... | 1·15 | 2·84 | 19·60 | 22·12 | 46·59 | 33·09 | 35·45 | 15·38 | 2·10 | ... | 178·32 |
| 1871 | ... | ... | 0·80 | 0·15 | 21·07 | 70·64 | 50·20 | 29·70 | 25·33 | 12·84 | ... | 0·97 | 211·70 |
| 1872 | 0·17 | ... | ... | 0·31 | 15·77 | 47·51 | 45·27 | 38·01 | 16·47 | 16·60 | 0·03 | 0·25 | 180·39 |
| 1873 | 0·64 | ... | ... | 3·73 | 11·52 | 50·38 | 65·50 | 37·18 | 27·13 | 15·36 | 0·64 | 0·02 | 212·10 |
| 1874 | ... | 0·06 | 1·76 | 0·15 | 8·08 | 39·41 | 28·39 | 29·45 | 18·17 | 13·99 | 2·51 | ... | 141·97 |
| 1875 | 0·53 | ... | 0·63 | 10·89 | 11·04 | 50·46 | 51·47 | 33·46 | 20·64 | 5·70 | 0·02 | ... | 184·84 |
| 1876 | 0·38 | ... | 0·66 | 0·09 | 6·48 | 35·95 | 52·98 | 25·27 | 27·83 | 4·33 | 6·34 | ... | 160·31 |
| 1877 | ... | 0·69 | ... | ... | 2·72 | 40·24 | 56·65 | 40·99 | 23·22 | 3·85 | 8·98 | ... | 177·34 |
| 1878 | ... | ... | 0·64 | ... | 4·45 | 40·30 | 38·92 | 34·37 | 18·19 | 20·57 | 3·16 | 0·41 | 161·01 |
| 1879 | ... | ... | ... | ... | 10·82 | 54·02 | 60·10 | 58·83 | 24·29 | 16·02 | ... | 3·16 | 227·24 |
| 1880 | ... | 0·35 | ... | 5·77 | 18·91 | 63·50 | 39·07 | 38·96 | 22·70 | 1·30 | 0·75 | ... | 191·31 |
| 1881 | ... | ... | ... | 0·66 | 7·21 | 35·34 | 71·66 | 46·38 | 22·49 | 7·91 | 6·79 | 0·30 | 198·74 |
| 1882 | 0·12 | 0·28 | ... | 1·61 | 12·51 | 59·15 | 61·88 | 39·05 | 15·01 | 9·67 | 2·30 | 2·55 | 204·13 |
| 1883 | ... | ... | 1·35 | 2·53 | 15·23 | 46·13 | 49·01 | 33·08 | 23·70 | 5·43 | 3·58 | 7·43 | 187·47 |
| Mean | 0·16 | 0·20 | 0·50 | 1·74 | 12·42 | 53·05 | 51·71 | 37·92 | 23·26 | 12·30 | 3·69 | 0·66 | 197·61 |
| 1884 | ... | ... | 0·54 | 0·27 | 16·17 | 41·09 | 51·24 | 34·71 | 31·71 | 18·78 | 2·49 | ... | 197·00 |
| 1885 | ... | 0·01 | ... | 1·11 | 3·68 | 47·13 | 44·55 | 65·69 | 9·87 | 9·24 | 9·26 | 0·02 | 190·56 |
| 1886 | ... | ... | 1·25 | ... | 10·00 | 27·56 | 39·33 | 32·87 | 19·37 | 10·22 | 4·22 | ... | 144·82 |
| Mean | 0·14 | 0·18 | 0·51 | 1·61 | 12·16 | 51·55 | 51·02 | 38·57 | 22·96 | 12·35 | 3·85 | 0·59 | 195·49 |

No. 420. KYAUKPYU.

Latitude N. 19° 26′. Longitude E. 93° 35′. Elevation 20 feet.

Administration: BURMA. Rainfall Province No. XXII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1866 | ... | ... | ... | 0·60 | 0·40 | 43·00 | 27·80 | 36·30 | 25·50 | 7·80 | 4·00 | ... | 145·40 |
| 1867 | 0·90 | ... | ... | 0·65 | 14·75 | 29·20 | 59·60 | 23·60 | 16·80 | 4·20 | 13·00 | ... | 162·70 |
| 1868 | ... | ... | ... | 0·80 | 8·90 | 34·10 | 38·70 | 38·60 | 18·50 | 6·60 | 7·70 | ... | 153·90 |
| 1869 | ... | ... | ... | 2·00 | 12·50 | 59·75 | 35·10 | 28·90 | 20·70 | 7·00 | ... | 1·20 | 167·15 |
| 1870 | 0·30 | ... | ... | 4·40 | 12·80 | 28·80 | 55·20 | 24·80 | 19·30 | 8·90 | 2·10 | ... | 156·60 |
| 1871 | ... | ... | 1·40 | ... | 19·90 | 50·70 | 51·60 | 31·30 | 19·80 | 17·50 | 0·70 | 0·20 | 193·10 |
| 1872 | ... | 1·00 | ... | ... | 13·10 | 37·60 | 40·80 | 46·10 | 13·10 | 7·20 | 1·80 | ... | 160·70 |
| 1873 | ... | ... | ... | ... | 7·20 | 29·60 | 32·70 | 53·90 | 17·10 | 10·40 | 0·70 | 0·10 | 151·70 |
| 1874 | ... | ... | 1·70 | ... | 5·50 | 40·70 | 13·30 | 55·80 | 23·85 | 21·30 | 3·20 | ... | 165·35 |
| 1875 | 0·10 | ... | 2·00 | 4·10 | 14·60 | 62·00 | 69·10 | 31·00 | 26·30 | 9·40 | 1·90 | ... | 220·50 |
| 1876 | ... | ... | ... | ... | 8·33 | 22·47 | 55·39 | 25·89 | 17·27 | 6·24 | 8·18 | ... | 143·77 |
| 1877 | ... | ... | ... | ... | 1·09 | 35·05 | 63·05 | 72·07 | 32·03 | 9·04 | 16·09 | ... | 228·42 |
| 1878 | ... | ... | ... | ... | 9·03 | 54·49 | 22·11 | 28·51 | 21·38 | 27·05 | 2·01 | ... | 164·64 |
| 1879 | ... | ... | ... | ... | 11·92 | 36·71 | 51·73 | 42·67 | 16·62 | 9·91 | 0·60 | 0·87 | 171·03 |
| 1880 | 0·41 | 0·09 | ... | 0·57 | 8·62 | 53·18 | 53·75 | 49·16 | 24·56 | 6·84 | 0·17 | ... | 197·35 |
| 1881 | ... | ... | ... | 0·12 | 12·08 | 38·20 | 78·38 | 37·16 | 27·36 | 10·32 | 7·29 | 0·20 | 211·01 |
| 1882 | ... | ... | ... | 3·03 | 11·19 | 53·59 | 44·22 | 43·84 | 20·86 | 7·34 | 1·87 | 3·20 | 189·14 |
| 1883 | ... | ... | 0·91 | 0·01 | 14·76 | 43·40 | 37·76 | 36·01 | 21·14 | 2·04 | 3·95 | 3·79 | 163·77 |
| Mean | 0·10 | 0·06 | 0·33 | 0·90 | 10·37 | 41·81 | 46·13 | 39·20 | 21·23 | 9·95 | 4·18 | 0·53 | 174·79 |

KYAUKPYU—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | 0·02 | ... | ... | 0·53 | 7·87 | 40·22 | 69·46 | 47·13 | 33·18 | 9·66 | 0·98 | ... | 209·05 |
| 1885 | ... | ... | 0·12 | 0·23 | 1·82 | 27·44 | 32·00 | 96·41 | 20·05 | 13·18 | 14·53 | ... | 205·78 |
| 1886 | ... | ... | 0·08 | ... | 7·75 | 38·41 | 41·84 | 43·96 | 21·69 | 11·39 | 4·23 | 1·30 | 170·65 |
| Mean | 0·08 | 0·05 | 0·30 | 0·81 | 9·72 | 40·89 | 46·36 | 42·53 | 21·77 | 10·16 | 4·52 | 0·52 | 177·71 |

No. 421. SANDOWAY.

Latitude N. 18° 28′. Longitude E. 94° 25′. Elevation 50 feet.

Administration: BURMA. Rainfall Province No. XXII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1860 | ... | ... | ... | ? | 18·18 | 48·60 | 55·79 | 31·49 | 45·31 | 11·58 | 2·07 | ... | ? |
| 1861 | ... | ... | ... | ... | 18·62 | 45·06 | 52·05 | ? | 39·35 | 20·40 | ? | ... | ? |
| 1862 | ... | ... | 1·20 | 0·40 | 14·25 | 47·40 | 74·65 | 50·75 | 11·60 | 22·55 | ... | ... | 222·80 |
| 1863 | 0·70 | ... | ... | 5·00 | 13·20 | 63·90 | 57·45 | 68·95 | ? | 19·00 | 1·40 | ? | ? |
| 1864 | ... | ... | ... | ... | 5·80 | 71·65 | 82·56 | 54·30 | 27·40 | 11·95 | ? | ... | ? |
| 1865 | Not on record. | | | | | | | | | | | | |
| 1866 | ... | ... | ... | ... | 14·90 | 80·40 | 38·50 | 60·80 | 34·30 | 11·00 | 5·30 | 0·15 | 245·35 |
| 1867 | ... | ... | ... | 1·00 | 21·30 | 33·40 | 48·80 | 26·50 | 40·15 | 2·18 | 6·15 | 1·30 | 180·78 |
| 1868 | ... | ... | 0·70 | 0·85 | 14·85 | 65·90 | 51·00 | 87·45 | 17·95 | 11·75 | 2·70 | ... | 253·15 |
| 1869 | ... | 0·55 | ... | 0·30 | 3·65 | 84·85 | 52·45 | 26·10 | 15·15 | 8·30 | ... | ... | 191·35 |
| 1870 | ... | ... | ... | 2·40 | 30·60 | 34·30 | 97·40 | 40·27 | 20·88 | 10·18 | ... | ... | 236·03 |
| 1871 | ... | ... | 1·20 | ... | 28·10 | 64·60 | 60·30 | 47·50 | 18·80 | 9·40 | ... | ... | 229·90 |
| 1872 | ... | 1·00 | ... | ... | 22·00 | 39·80 | 55·50 | 51·30 | 18·40 | 6·10 | 1·00 | ... | 195·10 |
| 1873 | ... | ... | ... | ... | 20·10 | 53·10 | 57·90 | 57·50 | 23·40 | 10·20 | 7·60 | ... | 229·80 |
| 1874 | ... | ... | 0·15 | ... | 12·00 | 36·00 | 13·00 | 57·10 | 9·40 | 20·40 | 0·50 | ... | 148·55 |
| 1875 | 0·50 | ... | 0·20 | 2·50 | 9·80 | 46·90 | 81·80 | 35·50 | 35·60 | 17·30 | 0·30 | ... | 230·40 |
| 1876 | ... | ... | ... | ... | 6·22 | 26·24 | 65·92 | 24·44 | 18·87 | 7·16 | 4·53 | 0·02 | 153·40 |
| 1877 | ... | ... | ... | ... | 2·05 | 60·02 | 74·09 | 74·15 | 22·05 | 8·39 | 8·83 | ... | 249·58 |
| 1878 | ... | ... | ... | ... | 8·83 | 29·62 | 24·73 | 25·38 | 20·63 | 16·91 | 0·62 | 0·34 | 127·06 |
| 1879 | 0·50 | ... | ... | 1·31 | 13·37 | 53·10 | 60·61 | 36·59 | 15·96 | 8·90 | 1·01 | 0·07 | 191·42 |
| 1880 | ... | ... | ... | 9·87 | 14·97 | 51·66 | 53·29 | 43·79 | 28·14 | 5·38 | 3·08 | ... | 212·18 |
| 1881 | 0·14 | ... | ... | ... | 8·04 | 33·88 | 72·98 | 49·54 | 24·31 | 8·30 | 7·72 | ... | 204·91 |
| 1882 | ... | ... | ... | 4·83 | 8·56 | 53·55 | 59·22 | 45·01 | 17·80 | 8·29 | 1·27 | 1·79 | 200·23 |
| 1883 | ... | ... | ... | 0·19 | 13·46 | 45·22 | 68·14 | 38·62 | 35·45 | 5·74 | 15·39 | 0·92 | 223·13 |
| Mean | 0·08 | 0·07 | 0·15 | 1·30 | 14·04 | 50·83 | 59·05 | 47·05 | 24·59 | 11·36 | 3·31 | 0·20 | 212·03 |
| 1884 | ... | ... | ... | 0·02 | 9·20 | 42·04 | 72·49 | 43·84 | 36·21 | 4·08 | 1·86 | ... | 209·74 |
| 1885 | ... | 0·04 | 0·36 | 0·06 | 13·16 | 50·81 | 80·03 | 89·70 | 18·95 | 3·90 | 2·99 | ... | 260·00 |
| 1886 | ... | 0·02 | ... | ... | 6·71 | 56·27 | 58·06 | 41·70 | 17·51 | 12·37 | 3·28 | ... | 195·92 |
| Mean | 0·07 | 0·06 | 0·15 | 1·15 | 13·54 | 50·70 | 60·34 | 48·41 | 24·54 | 10·84 | 3·23 | 0·19 | 213·22 |

No. 422. THAYETMYO.

Latitude N. 19° 22′. Longitude E. 95° 12′. Elevation 134 feet.

Administration: BURMA. Rainfall Province No. XXIII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1870 | ... | 0·30 | ... | 0·50 | 12·30 | 6·30 | 7·80 | 5·70 | 6·10 | 2·60 | ... | ... | 41·60 |
| 1871 | ... | ... | ... | 0·20 | 8·40 | 7·70 | 9·60 | 10·70 | 12·00 | 5·30 | 0·70 | ... | 54·60 |
| 1872 | ... | ... | ... | 0·10 | 6·50 | 11·70 | 7·90 | 8·60 | 19·20 | 2·90 | 1·20 | ... | 58·10 |
| 1873 | ... | ... | ... | ... | 6·20 | 7·60 | 6·40 | 10·15 | 4·60 | 4·00 | 4·00 | ... | 42·95 |
| 1874 | ... | ... | 1·00 | ... | 8·90 | 5·00 | 5·70 | 11·80 | 7·30 | 10·10 | 0·50 | 0·10 | 50·40 |
| 1875 | ... | ... | ... | 3·50 | 6·60 | 8·10 | 16·20 | 8·10 | 10·80 | 5·20 | 0·30 | ... | 58·80 |
| 1876 | ... | ... | ... | ... | 0·91 | 7·46 | 9·97 | 6·73 | 5·51 | 3·51 | 5·19 | ... | 39·28 |
| 1877 | ... | ... | ... | 0·40 | 3·88 | 12·52 | 9·91 | 20·13 | 4·25 | 9·56 | 1·90 | ... | 62·55 |
| 1878 | ... | ... | ... | 0·09 | 5·36 | 8·28 | 2·36 | 4·99 | 5·01 | 8·16 | 1·75 | ... | 36·00 |
| 1879 | 0·04 | ... | ... | ... | 1·36 | 8·28 | 6·64 | 6·22 | 10·49 | 7·08 | 0·07 | 0·04 | 40·22 |
| 1880 | ... | ... | 0·02 | 2·91 | 6·21 | 9·21 | 7·89 | 5·06 | 4·84 | 2·54 | 0·18 | 0·14 | 39·00 |
| 1881 | ... | ... | ... | 0·01 | 6·95 | 7·87 | 5·31 | 16·02 | 4·66 | 1·75 | 3·44 | ... | 46·01 |
| 1882 | ... | 0·01 | ... | 1·13 | 3·86 | 5·51 | 6·98 | 7·57 | 11·41 | 5·43 | 0·86 | 0·17 | 42·93 |
| 1883 | ... | ... | ... | 1·65 | 4·48 | 9·06 | 7·21 | 8·53 | 4·69 | 10·08 | 8·71 | 0·21 | 50·62 |
| Mean | ... | 0·02 | 0·07 | 0·75 | 5·85 | 8·19 | 7·85 | 9·02 | 7·92 | 5·59 | 2·06 | 0·05 | 47·37 |
| 1884 | 0·05 | ... | ... | 0·41 | 3·49 | 5·09 | 9·30 | 4·98 | 7·30 | 1·71 | 1·22 | ... | 33·55 |
| 1885 | ... | ... | 0·04 | 0·35 | 1·28 | 6·18 | 9·59 | 6·18 | 5·04 | 2·10 | 4·13 | ... | 34·89 |
| 1886 | 0·02 | 0·12 | ... | 0·44 | 3·42 | 8·55 | 6·69 | 6·42 | 9·01 | 1·96 | 5·37 | ... | 42·00 |
| Mean | 0·01 | 0·03 | 0·06 | 0·69 | 5·30 | 7·91 | 7·97 | 8·46 | 7·78 | 4·94 | 2·32 | 0·04 | 45·51 |

No. 423. TOUNGOO.

Latitude N. 18° 57′. Longitude E. 96° 24′. Elevation 169 feet.

Administration: BURMA. Rainfall Province No. XXIII.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1870 | ... | ... | ... | 0·50 | 12·60 | 10·80 | 16·10 | 11·40 | 6·60 | 6·50 | 0·20 | ... | 64·70 |
| 1871 | ... | ... | 0·30 | ... | 15·00 | 21·10 | 19·10 | 18·40 | 17·00 | 10·30 | 0·10 | ... | 101·30 |
| 1872 | ... | ... | ... | 0·10 | 7·60 | 15·30 | 16·20 | 15·30 | 6·90 | 9·20 | 1·30 | ... | 71·90 |
| 1873 | ... | ... | ... | ... | 4·20 | 7·90 | 7·80 | 21·30 | 9·30 | 8·10 | 2·40 | ... | 61.00 |
| 1874 | ... | ... | ... | ... | 7·70 | 7·60 | 7·40 | 17·10 | 11·30 | 8·80 | 1·10 | ... | 61·00 |
| 1875 | ... | ... | ... | 5·60 | 4·82 | 9·12 | 22·48 | 27·03 | 10·50 | 13·00 | ... | 0·50 | 93·05 |
| 1876 | ... | ... | ... | 1·62 | 3·16 | 5·32 | 23·65 | 12·81 | 14·73 | 0·78 | 2·81 | ... | 64·88 |
| 1877 | ... | ... | ... | 0·02 | 0·86 | 18·32 | 22·80 | 15·19 | 8·89 | 7·59 | 4·03 | ... | 77·70 |
| 1878 | ... | ... | ... | 2·31 | 2·97 | 10·13 | 9·50 | 12·82 | 11·52 | 9·30 | 0·82 | 1·73 | 61·10 |
| 1879 | 0·18 | ... | ... | 0·23 | 4·45 | 13·16 | 16·23 | 18·39 | 16·05 | 7·20 | 0·44 | ... | 76·33 |

TOUNGOO—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug | Sept. | Oct. | Nov. | Dec. | Total. |
| 1880 | ... | ... | ... | 2·85 | 9·00 | 13·50 | 19·59 | 19·52 | 18·00 | 5·10 | ... | 0·84 | 88·40 |
| 1881 | 0·15 | ... | ... | 0·74 | 8·16 | 16·29 | 19·56 | 23·49 | 8·47 | 9·22 | 1·70 | 0·08 | 87·86 |
| 1882 | ... | 0·03 | ... | 2·09 | 7·95 | 17·25 | 20·87 | 20·93 | 12·06 | 7·52 | 2·74 | 0·20 | 91·64 |
| 1883 | ... | ... | ... | 4·70 | 4·00 | 15·31 | 21·15 | 17·05 | 13·27 | 2·27 | 2·13 | ... | 79·88 |
| Mean | 0·02 | ... | 0·02 | 1·48 | 6·61 | 12·94 | 17·32 | 17·91 | 11·76 | 7·49 | 1·41 | 0·24 | 77·20 |
| 1884 | 0·08 | 0·26 | ... | 1·84 | 4·58 | 14·98 | 18·33 | 15·94 | 13·55 | 3·31 | 1·09 | ... | 73·96 |
| 1885 | ... | 0·17 | 0·17 | 3·41 | 5·89 | 18·17 | 19·53 | 19·52 | 13·57 | 11·11 | 0·93 | 0·05 | 92·52 |
| 1886 | ... | 2·42 | 0·12 | ... | 9·12 | 13·27 | 16·97 | 22·02 | 8·84 | 6·26 | 1·08 | ... | 80·10 |
| Mean | 0·02 | 0·17 | 0·03 | 1·53 | 6·59 | 13·38 | 17·49 | 18·13 | 11·80 | 7·39 | 1·35 | 0·20 | 78·08 |

No. 424. PROME.

Latitude N. 18° 48′. Longitude E. 95° 18′. Elevation 128 feet.

Administration: BURMA. Rainfall Province No. XXIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | ... | ... | ... | 1·10 | 8·70 | 4·30 | 12·40 | 7·50 | 8·30 | 3·50 | ... | ... | 45·80 |
| 1871 | ... | ... | 0·10 | ... | 13·40 | 14·20 | 7·70 | 6·60 | 9·50 | 11·40 | ... | ... | 62·90 |
| 1872 | ... | ... | ... | 1·30 | 4·90 | 9·60 | 12·60 | 22·90 | 12·70 | 7·30 | 0·50 | ... | 71·80 |
| 1873 | ... | ... | ... | ... | 5·40 | 12·40 | 14·00 | 37·70 | 6·90 | 8·70 | 3·20 | ... | 88·30 |
| 1874 | ... | ... | ... | ... | 6·95 | 5·18 | 1·25 | 7·25 | 2·07 | 5·00 | 0·05 | ... | 27·75 |
| 1875 | ... | ... | ... | 2·50 | 3·00 | 7·70 | 11·50 | 6·20 | 6·00 | 7·00 | ... | ... | 43·90 |
| 1876 | ... | ... | ... | 0·58 | 4·36 | 12·16 | 8·33 | 10·37 | 10·22 | 2·19 | 3·16 | ... | 51·37 |
| 1877 | ... | ... | ... | 1·27 | 2·62 | 11·95 | 7·15 | 17·15 | 6·08 | 6·59 | 7·03 | ... | 59·84 |
| 1878 | ... | ... | ... | ... | 8·37 | 9·17 | 5·59 | 6·93 | 6·98 | 7·96 | 2·59 | 0·06 | 47·65 |
| 1879 | 0·13 | ... | ... | ... | 2·75 | 9·53 | 11·00 | 6·52 | 13·83 | 5·33 | 0·62 | ... | 49·71 |
| 1880 | 0·05 | ... | 0·02 | 2·77 | 9·91 | 9·16 | 6·60 | 9·40 | 7·60 | 0·91 | 0·03 | 0·04 | 46·49 |
| 1881 | 0·04 | ... | ... | 0·87 | 5·78 | 10·39 | 9·44 | 5·50 | 4·61 | 1·51 | 4·50 | 0·20 | 42·84 |
| 1882 | ... | ... | ... | 0·70 | 4·42 | 6·46 | 10·05 | 10·78 | 13·20 | 3·51 | 0·94 | 0·15 | 50·21 |
| 1883 | ... | ... | ... | 0·55 | 5·77 | 12·12 | 9·55 | 5·84 | 7·05 | 4·87 | 7·64 | 0·09 | 53·48 |
| Mean | 0·02 | ... | 0·01 | 0·83 | 6·17 | 9·59 | 9·08 | 11·47 | 8·22 | 5·41 | 2·16 | 0·04 | 53·00 |
| 1884 | ... | ... | ... | 0·31 | 6·01 | 7·90 | 10·12 | 7·82 | 6·79 | 3·62 | 0·92 | ... | 43·49 |
| 1885 | ... | ... | ... | 1·47 | 2·50 | 9·23 | 6·56 | 4·27 | 4·12 | 2·64 | 2·69 | ... | 33·48 |
| 1886 | ... | 0·06 | 0·07 | ... | 2·14 | 12·98 | 5·43 | 11·23 | 4·92 | 4·95 | 2·41 | ... | 44·19 |
| Mean | 0·01 | ... | 0·01 | 0·79 | 5·70 | 9·67 | 8·78 | 10·82 | 7·70 | 5·12 | 2·13 | 0·03 | 50·76 |

No. 425. MYANAUNG.

Latitude N. 18° 17′. Longitude E. 95° 23′. Elevation 74 feet.

Administration: BURMA. Rainfall Province No. XXIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1874 | P | P | P | P | P | P | P | P | 10·70 | 5·20 | 0·30 | ... | P |
| 1875 | 0·10 | ... | ... | 4·50 | 10·60 | 6·60 | 14·10 | 10·80 | 5·20 | 7·20 | 1·40 | ... | 60·50 |
| 1876 | .... | ... | ... | 0·70 | 3·60 | 5·00 | 9·80 | 6·90 | 13·50 | 2·50 | 1·10 | ... | 43·10 |
| 1877 | ... | ... | ... | ... | 1·20 | 14·10 | 8·70 | 14·90 | 4·00 | 6·20 | 1·30 | ... | 50·40 |
| 1878 | ... | ... | ... | 0·30 | 4·30 | 11·60 | 5·40 | 11·60 | 12·60 | 6·00 | 1·10 | 0·90 | 53·80 |
| 1879 | ... | ... | ... | ... | 4·30 | 14·20 | 13·60 | 11·80 | 11·90 | 6·50 | 4·20 | ... | 66·50 |
| 1880 | ... | ... | ... | 2·70 | 10·00 | 6·95 | 14·95 | 7·25 | 9·90 | 3·30 | ... | ... | 55·00 |
| 1881 | ... | ... | ... | 0·30 | 5·60 | 14·00 | 11·40 | 7·55 | 6·20 | 3·20 | 2·20 | ... | 50·45 |
| 1882 | ... | ... | 0·20 | 0·80 | 3·55 | 9·05 | 8·85 | 11·80 | 10·70 | 6·25 | 2·00 | 0·50 | 53·70 |
| 1883 | ... | ... | ... | 0·03 | 5·30 | 9·05 | 5·95 | 11·40 | 13·30 | 5·50 | 9·50 | 0·60 | 60·63 |
| Mean | 0·01 | ... | 0·02 | 1·04 | 5·38 | 10·06 | 10·31 | 10·44 | 9·80 | 5·19 | 2·31 | 0·20 | 54·76 |
| 1884 | 0·30 | ... | ... | 0·10 | 5·96 | 8·10 | 10·53 | 8·86 | 7·53 | 2·39 | 0·49 | ... | 44·26 |
| 1885 | ... | 0·25 | ... | 1·94 | 2·25 | 12·85 | 8·46 | 7·62 | 8·16 | 1·16 | 1·58 | ... | 44·27 |
| 1886 | ... | 0·32 | ... | ... | 3·41 | 14·61 | 5·98 | 5·70 | 6·04 | 2·94 | 2·70 | ... | 41·70 |
| Mean | 0·03 | 0·05 | 0·02 | 0·95 | 5·01 | 10·51 | 9·81 | 9·68 | 9·21 | 4·49 | 2·14 | 0·15 | 52·05 |

No. 426. HENZADA.

Latitude N. 17° 39′. Longitude E. 95° 30′. Elevation 44 feet

Administration: BURMA. Rainfall Province No. XXIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1871 | ... | ... | ... | ... | 10·30 | 26·00 | 16·30 | 14·20 | 13·00 | 7·00 | ... | ... | 86·80 |
| 1872 | ... | ... | ... | 0·30 | 4·50 | 11·50 | 17·20 | 18·80 | 9·40 | 2·40 | 1·40 | ... | 65·50 |
| 1873 | ... | ... | ... | 0·10 | 2·40 | 12·90 | 15·40 | 15·60 | 13·40 | 4·80 | 5·60 | ... | 70·20 |
| 1874 | ... | ... | ... | 0·40 | 6·60 | 15·20 | 9·00 | 19·10 | 8·90 | 4·70 | 0·80 | ... | 64·70 |
| 1875 | 0·80 | ... | ... | 3·10 | 9·70 | 11·20 | 31·65 | 20·50 | 10·70 | 6·10 | 1·20 | ... | 94·95 |
| 1876 | ... | ... | ... | 0·03 | 4·35 | 14·12 | 26·15 | 9·39 | 12·53 | 2·08 | 5·69 | ... | 74·34 |
| 1877 | ... | ... | ... | ... | 5·07 | 19·26 | 20·02 | 21·12 | 9·20 | 5·61 | 1·36 | ... | 81·64 |
| 1878 | ... | ... | ... | ... | 4·68 | 13·37 | 15·52 | 11·43 | 7·52 | 8·25 | 1·76 | ... | 62·53 |
| 1879 | ... | ... | ... | 0·35 | 5·59 | 15·39 | 21·44 | 16·72 | 11·10 | 7·34 | 3·53 | ... | 81·46 |
| 1880 | ... | ... | ... | 2·51 | 9·46 | 19·16 | 15·54 | 19·52 | 12·71 | 2·08 | 0·96 | 0·20 | 82·14 |
| 1881 | ... | ... | ... | ... | 8·24 | 15·59 | 27·65 | 16·69 | 9·45 | 3·97 | 1·23 | ... | 82·82 |
| 1882 | ... | 1·12 | ... | 2·10 | 7·95 | 17·68 | 18·22 | 16·13 | 12·35 | 3·25 | 0·69 | 0·38 | 79·87 |
| 1883 | ... | ... | ... | 0·27 | 5·00 | 16·72 | 25·49 | 14·84 | 14·41 | 3·55 | 6·45 | 0·10 | 86·83 |
| Mean | 0·06 | 0·09 | ... | 0·70 | 6·45 | 16·01 | 19·97 | 16·46 | 11·13 | 4·79 | 2·36 | 0·05 | 79·98 |

HENZADA—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1884 | ... | 0·10 | ... | ... | 12·04 | 11·20 | 26·89 | 20·07 | 13·22 | 6·19 | 1·63 | ... | 91·34 |
| 1885 | ... | 0·40 | ... | 0·39 | 5·24 | 13·68 | 25·58 | 29·08 | 8·75 | 6·16 | 1·88 | ... | 91·16 |
| 1886 | ... | 3·40 | ... | ... | 7·32 | 23·62 | 19·88 | 11·82 | 12·89 | 7·43 | 1·48 | ... | 87·84 |
| Mean | 0·05 | 0·31 | ... | 0·60 | 6·78 | 16·04 | 20·75 | 17·19 | 11·22 | 5·06 | 2·23 | 0·04 | 80·27 |

No. 427. BASSEIN.

Latitude N. 16° 47′. Longitude E. 94° 50′. Elevation 35 feet.

Administration: BURMA. Rainfall Province No. XXIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 0·90 | ... | ... | 1·40 | 12·80 | 14·80 | 18·50 | 21·60 | 8·90 | 6·20 | 1·00 | ... | 86·10 |
| 1871 | ... | ... | 1·10 | 0·30 | 11·30 | 26·00 | 17·30 | 14·40 | 14·00 | 8·10 | 0·70 | 0·20 | 93·40 |
| 1872 | ... | ... | ... | 1·10 | 8·10 | 11·20 | 15·80 | 15·90 | 12·40 | 7·50 | 1·70 | ... | 73·70 |
| 1873 | ... | ... | ... | 2·70 | 5·90 | 6·70 | 31·10 | 18·50 | 27·10 | 8·10 | 8·20 | ... | 108·30 |
| 1874 | ... | ... | ... | ... | ... | ... | 16·00 | 36·90 | 7·00 | 8·20 | 0·90 | ... | 69·00 |
| 1875 | 1·08 | ... | ... | 2·60 | 7·25 | 16·00 | 43·12 | 23·72 | 13·70 | 6·78 | ... | ... | 114·25 |
| 1876 | ... | ... | ... | 0·07 | 9·34 | 13·62 | 36·52 | 9·12 | 23·79 | 5·15 | 5·89 | ... | 103·50 |
| 1877 | ... | ... | ... | ... | 5·59 | 41·43 | 31·94 | 34·37 | 9·10 | 8·11 | 2·11 | ... | 132·65 |
| 1878 | ... | ... | ... | ... | 7·49 | 17·83 | 11·27 | 20·84 | 11·81 | 17·82 | 3·92 | 0·10 | 91·08 |
| 1879 | ... | ... | ... | 1·86 | 9·89 | 18·31 | 19·65 | 18·91 | 14·70 | 7·52 | 8·67 | 0·15 | 99·66 |
| 1880 | ... | ... | ... | 8·88 | 10·67 | 12·74 | 26·71 | 19·72 | 18·11 | 8·73 | 2·80 | 0·85 | 109·21 |
| 1881 | 0·02 | ... | ... | ... | 9·80 | 21·40 | 32·40 | 20·27 | 18·81 | 7·33 | 2·14 | 0·03 | 112·20 |
| 1882 | ... | 0·62 | ... | 1·67 | 9·32 | 33·23 | 26·08 | 22·66 | 20·40 | 8·40 | 3·23 | 0·21 | 125·82 |
| 1883 | ... | ... | ... | 0·15 | 5·82 | 23·58 | 26·36 | 12·99 | 13·84 | 5·72 | 17·58 | 0·28 | 106·32 |
| Mean | 0·14 | 0·04 | 0·08 | 1·48 | 8·09 | 18·35 | 25·20 | 20·71 | 15·26 | 8·12 | 4·20 | 0·13 | 101·86 |
| 1884 | 0·05 | 0·72 | ... | ... | 6·70 | 18·32 | 22·90 | 24·83 | 20·54 | 11·37 | 4·39 | ... | 109·82 |
| 1885 | ... | 0·59 | ... | 0·01 | 8·90 | 17·32 | 24·80 | 47·67 | 10·15 | 5·33 | 3·85 | ... | 118·62 |
| 1886 | ... | 2·54 | ... | 0·25 | 6·12 | 23·87 | 20·43 | 21·02 | 12·72 | 6·91 | 4·14 | ... | 98·00 |
| Mean | 0·12 | 0·26 | 0·06 | 1·23 | 7·94 | 18·61 | 24·76 | 22·55 | 15·12 | 8·07 | 4·19 | 0·11 | 103·02 |

No. 428. RANGOON.

Latitude N. 16° 46′. Longitude E. 96° 12′. Elevation 41 feet.

Administration: BURMA. Rainfall Province No. XXIII.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1870 | 0·50 | 0·50 | ... | 3·20 | 16·00 | 11·50 | 12·30 | 12·80 | 14·70 | 6·50 | 0·80 | ... | 78·80 |
| 1871 | ... | ... | 0·50 | ... | 37·20 | 32·40 | 27·20 | 27·30 | 19·20 | 9·60 | ... | ... | 143·40 |
| 1872 | ... | ... | 0·10 | 1·00 | 8·70 | 18·60 | 24·90 | 27·30 | 21·10 | 9·60 | 1·20 | ... | 112·50 |
| 1873 | ... | ... | ... | 3·00 | 2·90 | 28·90 | 35·70 | 18·20 | 20·10 | 16·30 | 6·00 | ... | 131·10 |

RANGOON—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1874 | ... | ... | ... | ... | 7·85 | 11·82 | 7·38 | 15·45 | 13·28 | 12·52 | 0·75 | ... | 69·05 |
| 1875 | ... | ... | ... | 4·90 | 16·90 | 15·50 | 17·60 | 9·50 | 7·90 | 3·16 | 3·90 | ... | 79·30 |
| 1876 | ... | ... | ... | 1·41 | 19·53 | 12·72 | 25·95 | 16·58 | 14·70 | 3·50 | 5·62 | ... | 98·01 |
| 1877 | ... | ... | ... | ... | 1·10 | 27·10 | 22·34 | 21·36 | 13·87 | 11·33 | 4·34 | ... | 101·44 |
| 1878 | ... | ... | ... | ... | 10·11 | 18·06 | 10·45 | 14·07 | 17·06 | 12·18 | 1·70 | ... | 83·63 |
| 1879 | 0·04 | ... | ... | 4·57 | 12·17 | 15·12 | 19·14 | 20·25 | 18·66 | 8·48 | 15·26 | ... | 113·69 |
| 1880 | 1·90 | ... | ... | 3·95 | 9·51 | 19·60 | 21·71 | 16·30 | 14·15 | 4·01 | ... | 0·87 | 92·00 |
| 1881 | ... | ... | ... | ... | 14·37 | 17·25 | 30·30 | 17·72 | 15·17 | 4·21 | 2·99 | 0·08 | 102·09 |
| 1882 | ... | 0·34 | 0·07 | 2·75 | 7·70 | 12·79 | 21·21 | 20·33 | 25·88 | 10·10 | 1·09 | 0·10 | 102·36 |
| 1883 | ... | ... | 0·14 | 4·40 | 7·17 | 14·03 | 18·82 | 14·55 | 12·12 | 3·55 | 7·10 | ... | 81·88 |
| Mean | 0·17 | 0·06 | 0·06 | 2·08 | 11·37 | 18·24 | 21·07 | 17·98 | 16·28 | 8·21 | 3·63 | 0·07 | 99·22 |
| 1884 | 0·29 | ... | ... | 0·02 | 9·25 | 19·85 | 23·61 | 17·31 | 12·83 | 3·52 | 2·73 | ... | 89·41 |
| 1885 | ... | 0·17 | 0·02 | 1·63 | 4·85 | 14·33 | 24·96 | 29·65 | 18·90 | 6·80 | 2·06 | 0·20 | 103·57 |
| 1886 | ... | 1·58 | ... | ... | 11·32 | 23·01 | 18·28 | 17·83 | 13·02 | 12·11 | 1·84 | ... | 98·99 |
| Mean | 0·16 | 0·15 | 0·05 | 1·81 | 10·86 | 18.39 | 21·29 | 18·62 | 16·04 | 8·08 | 3·38 | 0·07 | 98·90 |

No. 429. SHWEGYIN.

Latitude N. 17° 55′. Longitude E. 96° 58′. Elevation 128 feet.

Administration: BURMA. Rainfall Province No. XXIV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1869 | ... | 1·40 | ... | 3·50 | 9·55 | 54·25 | 47·80 | 33·10 | 25·05 | 8·45 | ... | ... | 183·10 |
| 1870 | 0·10 | 2·40 | 1·40 | 4·20 | 31·00 | 37·30 | 43·10 | 30·20 | 18·50 | 13·60 | 2·00 | ... | 183·80 |
| 1871 | ... | ... | 1·30 | 1·90 | 30·10 | 33·50 | 45·40 | 42·60 | 30·50 | 15·80 | 9·80 | ... | 201·90 |
| 1872 | ... | ... | 2·10 | 1·70 | 15·90 | 36·40 | 30·80 | 29·00 | 9·60 | 11·30 | 1·00 | ... | 137·80 |
| 1873 | ... | ... | ... | 2·10 | 2·20 | 19·80 | 19·90 | 40·80 | 15·10 | 9·50 | 4·70 | ... | 114·10 |
| 1874 | ... | ... | 1·10 | ... | 14·00 | 38·30 | 12·70 | 45·80 | 12·40 | 17·70 | ... | ... | 142·00 |
| 1875 | ... | ... | ... | ... | 17·30 | 41·30 | 55·70 | 22·00 | 26·10 | 8·30 | 1·40 | ... | 172·10 |
| 1876 | ... | ... | ... | 1·11 | 11·42 | 19·35 | 28·18 | 26·84 | 20·26 | 2·15 | 3·17 | ... | 112·48 |
| 1877 | ... | ... | ... | ... | 1·38 | 38·09 | 42·00 | 34·07 | 24·79 | 8·24 | 3·57 | ... | 152·14 |
| 1878 | 0·03 | ... | ... | 0·46 | 4·47 | 16·78 | 11·71 | 23·88 | 16·75 | 16·19 | 1·52 | 0·30 | 92·09 |
| 1879 | ... | ... | ... | 3·39 | 5·92 | 24·05 | 30·05 | 27·57 | 19·11 | 7·96 | 6·76 | 0·02 | 124·83 |
| 1880 | 0·20 | ... | ... | 10·53 | 6·34 | 23·66 | 24·00 | 24·11 | 19·46 | 10·22 | 0·11 | 1·41 | 120·04 |
| 1881 | ... | ... | ... | 0·58 | 10·53 | 21·93 | 40·63 | 38·06 | 18·98 | 12·07 | 1·04 | 0·05 | 141·87 |
| 1882 | ... | 0·42 | ... | 3·86 | 6·31 | 32·61 | 32·04 | 33·85 | 18·96 | 11·22 | 1·60 | ... | 140·87 |
| 1883 | ... | 0·37 | ... | 4·80 | 11·54 | 26·70 | 41·16 | 27·09 | 19·00 | 6·99 | 2·04 | ... | 139·69 |
| Mean | 0·02 | 0·31 | 0·39 | 2·54 | 11·86 | 30·93 | 33·68 | 31·93 | 19·50 | 10·65 | 1·98 | 0·12 | 143·91 |
| 1884 | 0·01 | ... | 0·01 | 2·11 | 6·54 | 27·91 | 27·28 | 27·29 | 25·11 | 6·50 | 3·42 | ... | 126·18 |
| 1885 | ... | 0·47 | ... | 1·15 | 4·11 | 25·06 | 41·65 | 35·30 | 14·59 | 7·24 | 1·36 | ... | 130·99 |
| 1886 | 0·11 | 3·11 | ... | ... | 7·41 | 23·06 | 33·42 | 42·63 | 16·75 | 7·91 | 2·12 | ... | 136·52 |
| Mean | 0·03 | 0·45 | 0·33 | 2·30 | 10·89 | 30·00 | 33·75 | 32·46 | 19·39 | 10·07 | 2·03 | 0·10 | 141·80 |

No. 430. MOULMEIN.

Latitude N. 16° 29′ Longitude E. 97° 40′. Elevation 94 feet.

Administration : BURMA. Rainfall Province No. XXIV.

| YEAR. | INCHES OF RAINFALL. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | TOTAL. |
| 1850 | ... | ... | ... | 3·90 | 4·90 | 31·50 | 42·00 | 13·90 | 26·30 | 1·70 | ... | ... | 124·20 |
| 1851 | ... | ... | ... | 1·70 | 20·50 | 38·80 | 30·10 | 27·20 | 28·70 | 7·80 | ... | ... | 154·80 |
| 1852 | ... | ... | ... | ... | 17·50 | 26·30 | 30·40 | 17·20 | 29·50 | 3·40 | ... | ... | 124·30 |
| 1853 | ... | ... | ... | 0·20 | 15·30 | 29·80 | 57·30 | 18·10 | 26·50 | 4·50 | ... | ... | 151·70 |
| 1854 | ... | ... | ... | 7·00 | 18·50 | 25·20 | 48·70 | 49·50 | 35·60 | 11·95 | ... | ... | 196·45 |
| 1855 | ... | ... | ... | 2·50 | 21·55 | 39·75 | 48·20 | 36·20 | 31·48 | 6·52 | ... | ... | 186·20 |
| 1856 | ... | ... | ... | 6·02 | 13·95 | 21·38 | 33·42 | 41·65 | 36·45 | 1·20 | ... | ... | 154·07 |
| 1857 | ... | ... | ... | 2·48 | 28·27 | 33·00 | 35·25 | 63·80 | 20·00 | 10·30 | ... | ... | 193·10 |
| 1858 | ... | ... | ... | 2·80 | 21·00 | 34·55 | 45·60 | 57·90 | 26·57 | 2·10 | ... | ... | 190·52 |
| 1859 | ... | ... | ... | 3·45 | 18·95 | 36·05 | 28·75 | 32·05 | 24·75 | 11·85 | ... | ... | 155·85 |
| 1860 | ... | ... | ... | 7·10 | 15·85 | 29·50 | 35·65 | 32·25 | 21·05 | 3·90 | ... | ... | 145·30 |
| 1861 | ... | ... | ... | 4·60 | 17·85 | 25·05 | 33·40 | 35·00 | 28·60 | 19·70 | ... | ... | 164·20 |
| 1862 | ... | ... | ... | 1·30 | 29·40 | 37·90 | 46·30 | 61·60 | 21·40 | 10·40 | ... | ... | 208·30 |
| 1863 | ... | ... | ... | 9·00 | 35·00 | 56·12 | 50·55 | 71·48 | 30·30 | 12·15 | ... | ... | 264·60 |
| 1864 | ... | ... | ... | ... | 12·40 | 56·85 | 60·00 | 31·75 | 46·10 | 3·80 | ... | ... | 210·90 |
| 1865 | ... | ... | ... | 0·40 | 26·75 | 51·15 | 68·35 | 72·20 | 38·70 | 12·80 | 8·65 | ... | 279·00 |
| 1866 | ... | ... | 0·40 | ... | 37·80 | 53·70 | 47·95 | 60·70 | 36·10 | 8·80 | 1·90 | ... | 247·35 |
| 1867 | ... | ... | ... | 1·70 | 21·95 | 32·40 | 32·95 | 38·70 | 63·35 | 5·70 | 0·60 | ... | 197·35 |
| 1868 | ... | ... | ... | 6·60 | 1·530 | 43·95 | 31·30 | 61·50 | 36·75 | 10·10 | 5·70 | ... | 211·20 |
| 1869 | ... | ... | ... | 2·65 | 11·45 | 64·95 | 48·75 | 35·45 | 16·80 | 9·55 | 0·25 | ... | 189·85 |
| 1870 | ... | 1·00 | ... | 2·00 | 22·15 | 29·45 | 46·85 | 59·25 | 15·00 | 8·85 | 0·90 | ... | 185·45 |
| 1871 | ... | ... | ... | 3·25 | 36·00 | 55·45 | 43·40 | 51·50 | 39·15 | 17·10 | ... | ... | 245·85 |
| 1872 | ... | 0·05 | ... | 2·80 | 35·55 | 27·75 | 46·70 | 47·80 | 21·50 | 1·25 | ... | ... | 183·40 |
| 1873 | ... | ... | 0·15 | 8·55 | 15·20 | 38·95 | 61·45 | 34·75 | 44·30 | 8·10 | 1·15 | 0·25 | 212·85 |
| 1874 | ... | ... | 1·70 | 0·85 | 30·15 | 31·95 | 45·20 | 54·50 | 25·80 | 16·25 | 0·60 | ... | 207·00 |
| 1875 | ... | ... | 0·10 | 5·65 | 17·20 | 52·95 | 43·10 | 39·15 | 54·60 | 9·05 | 2·75 | ... | 224·55 |
| 1876 | ... | ... | 1·12 | 1·06 | 19·96 | 36·95 | 50·39 | 36·18 | 36·61 | 1·97 | 1·69 | 0·02 | 185·95 |
| 1877 | ... | ... | 0·45 | 0·04 | 11·33 | 43·54 | 32·20 | 47·64 | 20·30 | 6·76 | 2·00 | ... | 164·26 |
| 1878 | ... | ... | ... | 0·39 | 17·68 | 36·05 | 20·60 | 24·33 | 18·18 | 14·89 | 1·95 | 0·07 | 134·14 |
| 1879 | 0·02 | ... | 0·48 | 7·69 | 11·81 | 33·08 | 29·24 | 39·62 | 29·96 | 8·65 | 10·71 | ... | 171·26 |
| 1880 | 0·30 | ... | ... | 6·63 | 16·65 | 25·94 | 63·64 | 39·89 | 37·56 | 8·46 | 0·31 | 0·10 | 199·48 |
| 1881 | ... | ... | ... | 1·25 | 20·26 | 37·11 | 51·91 | 59·14 | 19·31 | 11·39 | 5·36 | 0·15 | 205·88 |
| 1882 | ... | ... | 0·10 | 4·27 | 15·79 | 52·62 | 45·50 | 40·58 | 30·44 | 11·82 | 1·78 | ... | 202·90 |
| 1883 | ... | 0·27 | ... | 2·42 | 13·62 | 38·70 | 40·72 | 30·53 | 36·03 | 2·05 | 1·94 | ... | 166·28 |
| Mean | 0·01 | 0·04 | 0·13 | 3·24 | 20·22 | 38·48 | 43·41 | 43·03 | 30·99 | 8·38 | 1·42 | 0·02 | 189·37 |
| 1884 | 0·29 | ... | ... | 0·75 | 11·91 | 28·61 | 51·07 | 38·79 | 38·03 | 8·70 | 3·89 | ... | 182·04 |
| 1885 | ... | 0·69 | ... | 1·49 | 7·60 | 48·62 | 53·32 | 55·42 | 14·97 | 6·26 | 1·87 | 0·12 | 190·36 |
| 1886 | ... | 0·05 | 0·06 | ... | 19·93 | 33·83 | 43·22 | 32·93 | 15·84 | 11·30 | ... | ... | 157·16 |
| Mean | 0·02 | 0·06 | 0·12 | 3·04 | 19·65 | 38·36 | 43·88 | 42·98 | 30·34 | 8·41 | 1·46 | 0·02 | 188·34 |

No. 431. MERGUI.

Latitude N. 12° 11′. Longitude E. 98° 38′. Elevation 96 feet.

Administration: BURMA. Rainfall Province No. XXIV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | P | P | P | P | P | P | P | 22·30 | 17·55 | 4·55 | 0·75 | ... | P |
| 1849 | 0·95 | 1·80 | 0·30 | 3·35 | 17·10 | 27·65 | 17·90 | 28·48 | 26·50 | 15·20 | ... | 0·90 | 140·13 |
| 1850 | 1·50 | ... | 1·85 | 5·90 | 7·53 | 32·63 | 36·52 | 12·35 | 29·77 | 6·70 | 8·40 | ... | 143·15 |
| 1851 | ... | 1·80 | 0·50 | 5·75 | 12·35 | 28·20 | 24·25 | 32·35 | 20·10 | 25·90 | 1·80 | 2·40 | 155·40 |
| 1852 to 1867 | Not on record. | | | | | | | | | | | | |
| 1868 | 0·20 | 1·70 | 2·60 | 3·50 | 36·40 | 28·30 | 31·10 | 32·00 | 27·40 | 9·90 | 5·30 | ... | 178·40 |
| 1869 | 0·10 | 0·70 | 0·50 | 6·70 | 13·30 | 32·60 | 34·60 | 30·20 | 32·80 | 13·50 | 0·10 | ... | 165·10 |
| 1870 | 0·50 | 2·40 | 0·20 | 7·80 | 21·90 | 20·20 | 30·90 | 27·80 | 31·00 | 5·30 | 3·10 | ... | 151·10 |
| 1871 | ... | 5·50 | 10·00 | 3·60 | 24·60 | 45·30 | 23·90 | 34·60 | 30·10 | 16·70 | 0·10 | ... | 194·40 |
| 1872 | 0·50 | ... | 0·80 | 3·30 | 7·40 | 18·80 | 30·30 | 35·60 | 27·40 | 10·50 | 0·80 | ... | 135·40 |
| 1873 | ... | ... | ... | 2·30 | 5·60 | 24·90 | 31·30 | 31·30 | 21·50 | 11·50 | 7·40 | ... | 133·80 |
| 1874 | 1·40 | 2·52 | 3·12 | 9·08 | 19·20 | 30·22 | 13·12 | 31·18 | 17·10 | 19·18 | 1·02 | 1·08 | 148·22 |
| 1875 | 0·10 | 0·10 | 0·02 | 1·20 | 16·28 | 30·18 | 30·62 | 22·65 | 15·95 | 13·65 | 1·22 | 0·03 | 132·00 |
| 1876 | 0·07 | 0·82 | 0·03 | 11·11 | 26·40 | 20·07 | 45·20 | 22·65 | 29·06 | 14·11 | 1·17 | 2·05 | 172·74 |
| 1877 | ... | 0·07 | 3·54 | 0·60 | 15·99 | 29·38 | 30·57 | 29·29 | 15·58 | 9·23 | 1·79 | 0·02 | 136·06 |
| 1878 | 1·05 | 1·21 | 5·62 | 3·33 | 12·89 | 26·57 | 14·50 | 21·65 | 34·60 | 13·37 | 6·50 | 1·93 | 143·22 |
| 1879 | 0·06 | 1·40 | 3·82 | 23·09 | 14·76 | 19·56 | 22·77 | 19·35 | 31·97 | 17·07 | 7·50 | 2·31 | 163·66 |
| 1880 | 0·12 | ... | 3·91 | 7·38 | 17·20 | 40·82 | 36·01 | 21·41 | 20·38 | 9·73 | 0·55 | ... | 157·51 |
| 1881 | ... | 2·35 | 2·36 | 2·85 | 20·55 | 29·96 | 41·08 | 32·35 | 25·95 | 16·00 | 6·96 | 1·26 | 181·67 |
| 1882 | 1·22 | 3·02 | 5·55 | 8·24 | 16·91 | 44·40 | 53·47 | 30·31 | 32·11 | 11·93 | 5·86 | ... | 213·02 |
| 1883 | ... | 1·23 | 0·26 | 4·84 | 14·41 | 30·55 | 33·90 | 28·36 | 35·45 | 20·79 | 6·15 | ... | 175·94 |
| Mean | 0·41 | 1·40 | 2·37 | 6·00 | 16·88 | 29·49 | 30·63 | 27·31 | 26·11 | 13·24 | 3·32 | 0·60 | 157·76 |
| 1884 | 0·35 | 1·05 | 0·45 | 2·68 | 10·05 | 26·69 | 39·41 | 37·65 | 38·40 | 16·70 | 5·92 | ... | 179·35 |
| 1885 | 1·70 | 1·88 | 2·00 | 2·00 | 2·56 | 38·83 | 41·80 | 33·45 | 16·99 | 14·33 | 3·49 | 0·04 | 159·07 |
| 1886 | 0·10 | 3·38 | 2·16 | 2·48 | 20·94 | 33·51 | 37·89 | 28·46 | 29·68 | 11·33 | 2·64 | ... | 172·57 |
| Mean | 0·45 | 1·49 | 2·25 | 5·50 | 16·11 | 29·97 | 31·87 | 28·08 | 26·41 | 13·36 | 3·41 | 0·52 | 159·42 |

No. 432. TAVOY.

Latitude N. 14° 5′. Longitude E. 98° 13′. Elevation 20 feet.

Administration: BURMA. Rainfall Province No. XXIV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1848 | P | P | P | P | P | 23·30 | 40·50 | 55·30 | 31·30 | 6·15 | 3·10 | ... | P |
| 1849 | ... | ... | 0·45 | 1·10 | 13·19 | 47·62 | 32·74 | 29·20 | 35·44 | 8·97 | 0·20 | 0·10 | 169·51 |
| 1850 | 2·70 | 1·55 | 0·96 | 1·65 | 5·87 | 62·29 | 60·00 | 33·80 | 32·40 | 3·00 | 5·88 | ... | 210·10 |

TAVOY—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1851 | ... | 1·72 | 0·98 | 7·22 | 27·41 | 42·91 | 40·17 | 68·13 | 25·91 | 11·60 | 0·56 | 0·75 | 227·36 |
| 1852 | ... | ... | 1·40 | 3·19 | ? | ? | ? | ? | ? | ? | ? | ? | ? |
| 1853 to 1860 | Not on record. | | | | | | | | | | | | |
| 1861 | ... | ... | 1·65 | 10·05 | 16·70 | 30·95 | 26·00 | 48·50 | 33·95 | 18·25 | 4·00 | 0·20 | 190·25 |
| 1862 | ... | 0·50 | 1·45 | 1·15 | 19·27 | 37·20 | 43·80 | 51·48 | 24·09 | 9·93 | 2·08 | ... | 190·95 |
| 1863 | ... | 1·10 | 0·15 | 7·05 | 35·52 | 33·80 | 44·69 | 44·17 | 30·15 | 9·65 | 4·85 | ... | 211·13 |
| 1864 | ... | ... | 1·20 | ... | 1·55 | 28·13 | 50·85 | 31·00 | 35·04 | 0·95 | ... | ... | 148·72 |
| 1865 | ... | ... | 1·90 | 2·00 | 21·61 | 39·60 | 57·05 | 43·45 | 49·60 | 16·80 | 3·69 | 0·25 | 235·86 |
| 1866 | ... | 0·55 | ... | 0·85 | 18·45 | 50·38 | 32·60 | 30·48 | 39·20 | 4·00 | 0·82 | ... | 177·33 |
| 1867 | ... | ... | ... | 6·20 | 21·65 | 33·90 | 43·50 | 33·05 | 49·70 | 2·55 | 0·20 | ... | 190·75 |
| 1868 | ... | 1·50 | ... | 0·60 | 10·50 | 45·75 | 39·50 | 53·75 | 36·30 | 4·90 | 2·40 | ... | 195·20 |
| 1869 | ... | ... | ... | 5·80 | 7·30 | 59·95 | 40·45 | 28·10 | 29·35 | 18·20 | 1·40 | ... | 190·55 |
| 1870 | ... | 0·05 | ... | 0·69 | 22·15 | 22·45 | 49·70 | 49·80 | 34·55 | 5·40 | 0·95 | ... | 185·65 |
| 1871 | ... | 7·00 | 1·30 | 1·30 | 30·10 | 38·50 | 44·40 | 33·70 | 59·30 | 14·30 | ... | ... | 229·90 |
| 1872 | ... | ... | ... | 0·60 | 17·00 | 25·80 | 44·60 | 48·60 | 32·70 | 7·90 | 2·20 | ... | 179·40 |
| 1873 | ... | ... | ... | ... | 2·70 | 37·30 | 47·90 | 22·10 | 44·20 | 9·10 | 3·40 | ... | 166·70 |
| 1874 | ... | 0·90 | 0·60 | 11·82 | 34·76 | 35·45 | 22·12 | 65·85 | 14·28 | 24·50 | ... | 0·20 | 210·42 |
| 1875 | ... | 0·05 | ... | 6·40 | 10·70 | 40·88 | 63·90 | 42·05 | 43·65 | 21·17 | 1·10 | ... | 229·90 |
| 1876 | ... | ... | ... | 3·10 | 27·47 | 29·22 | 62·27 | 26·74 | 19·51 | 6·53 | 1·08 | ... | 175·92 |
| 1877 | ... | ... | 0·05 | 1·15 | 18·52 | 54·32 | 54·23 | 56·04 | 12·52 | 6·77 | 2·18 | 1·04 | 206·82 |
| 1878 | ... | ... | 0·10 | 5·12 | 12·02 | 39·09 | 18·04 | 20·03 | 44·03 | 17·02 | 3·05 | 1·01 | 159·51 |
| 1879 | 0·05 | ... | 0·73 | 19·15 | 13·55 | 32·90 | 43·77 | 39·18 | 45·40 | 16·60 | 9·78 | ... | 221·11 |
| 1880 | ... | ... | 4·83 | 11·65 | 19·82 | 33·76 | 66·96 | 32·18 | 35·26 | 10·09 | 0·30 | ... | 214·85 |
| 1881 | ... | ... | 1·48 | ... | 14·55 | 34·51 | 46·86 | 49·86 | 29·04 | 9·15 | 3·75 | 0·51 | 189·71 |
| 1882 | ... | ... | 0·10 | 8·93 | 11·88 | 51·19 | 59·12 | 48·54 | 40·26 | 12·65 | 2·07 | ... | 234·74 |
| 1883 | ... | 0·36 | ... | 2·16 | 14·85 | 42·86 | 59·16 | 42·29 | 20·32 | 9·82 | 3·62 | ... | 195·44 |
| **Mean** | **0·10** | **0·57** | **0·72** | **4·40** | **17·27** | **39·04** | **45·74** | **41·77** | **34·35** | **10·59** | **2·32** | **0·15** | **197·02** |
| 1884 | 0·03 | 0·88 | ... | ... | 13·75 | 25·76 | 48·98 | 34·22 | 33·23 | 4·69 | 4·18 | ... | 165·72 |
| 1885 | 2·76 | 0·56 | 0·56 | 0·64 | 3·63 | 66·48 | 47·87 | 49·93 | 14·41 | 3·93 | 2·35 | 0·02 | 193·14 |
| 1886 | ... | 0·12 | 1·46 | 0·95 | 15·86 | 50·70 | 47·76 | 43·34 | 36·48 | 18·97 | 0·19 | ... | 215·83 |
| **Mean** | **0·18** | **0·56** | **0·71** | **4·01** | **16·63** | **39·90** | **45·98** | **41·85** | **33·72** | **10·45** | **2·31** | **0·14** | **196·44** |

No. 433. PORT BLAIR.

Latitude N. 11° 41′. Longitude E. 92° 42′. Elevation 61 feet.

Administration: ANDAMAN SETTLEMENTS. Rainfall Province No. XXV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1868 | ... | ... | 0·13 | 1·02 | 16·99 | 11·87 | 17·62 | 11·39 | 22·11 | 12·27 | 9·11 | 1·04 | 103·55 |
| 1869 | 0·13 | 1·40 | ... | 8·22 | 21·73 | 28·51 | 22·52 | 16·85 | 27·62 | 13·71 | 4·79 | 4·29 | 149·77 |
| 1870 | 2·92 | 8·59 | 0·08 | 0·45 | 16·94 | 18·12 | 17·39 | 34·29 | 16·30 | 14·07 | 5·30 | 1·62 | 136·07 |
| 1871 | ... | 2·20 | 0·70 | 1·63 | 17·54 | 11·48 | 20·13 | 12·02 | 16·20 | 9·47 | 8·47 | 0·23 | 100·07 |

PORT BLAIR—*continued.*

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1872 | 0·08 | 0·51 | ... | 0·75 | 11·12 | 17·14 | 21·38 | 20·27 | 15·64 | 11·03 | 5·10 | ... | 103·02 |
| 1873 | ... | 3·50 | 0·25 | 1·03 | 12·27 | 29·26 | 17·43 | 10·52 | 17·16 | 12·43 | 7·48 | 3·38 | 114·71 |
| 1874 | 0·20 | ... | 0·20 | 0·32 | 26·53 | 13·05 | 14·98 | 16·87 | 13·11 | 9·72 | 8·58 | 1·79 | 105·35 |
| 1875 | 2·26 | ... | 0·03 | 6·95 | 17·79 | 15·29 | 16·71 | 16·77 | 19·29 | 7·93 | 3·11 | 2·36 | 108·49 |
| 1876 | 0·50 | ... | 0·18 | 1·42 | 20·75 | 13·47 | 15·01 | 10·72 | 18·80 | 20·27 | 19·25 | 6·22 | 126·59 |
| 1877 | 1·27 | 5·26 | 0·73 | ... | 4·77 | 25·45 | 8·00 | 18·80 | 16·57 | 17·89 | 7·32 | 8·76 | 114·82 |
| 1878 | 0·99 | ... | ... | 1·05 | 9·95 | 24·01 | 17·35 | 16·04 | 20·61 | 13·10 | 10·29 | 15·46 | 128·85 |
| 1879 | 2·49 | 0·02 | 0·53 | 3·28 | 22·43 | 12·07 | 11·96 | 11·21 | 19·90 | 11·28 | 7·57 | 8·99 | 111·73 |
| 1880 | 2·59 | ... | 0·17 | 6·84 | 15·11 | 15·12 | 20·89 | 7·49 | 18·32 | 9·08 | 2·37 | 10·32 | 108·30 |
| 1881 | 2·13 | 0·18 | 3·29 | ... | 18·47 | 22·20 | 7·49 | 9·34 | 28·18 | 9·65 | 15·27 | 9·36 | 125·56 |
| 1882 | 0·21 | 1·61 | 0·90 | 7·84 | 14·80 | 25·81 | 24·49 | 12·79 | 22·73 | 15·46 | 9·85 | 1·20 | 137·69 |
| 1883 | 0·63 | 0·26 | ... | 0·76 | 12·52 | 16·47 | 19·53 | 17·59 | 16·60 | 6·30 | 12·87 | 15·73 | 119·26 |
| Mean | 1·03 | 1·47 | 0·45 | 2·60 | 16·23 | 18·71 | 17·06 | 15·19 | 19·32 | 12·10 | 8·55 | 5·67 | 118·38 |
| 1884 | 0·60 | ... | ... | 0·16 | 15·33 | 12·93 | 14·79 | 18·37 | 29·91 | 7·34 | 10·97 | 0·31 | 110·71 |
| 1885 | ... | 0·21 | 0·70 | 0·95 | 11·47 | 13·77 | 19·58 | 12·94 | 21·12 | 10·47 | 12·80 | 7·39 | 111·38 |
| 1886 | 0·20 | 1·74 | 0·22 | 2·28 | 16·06 | 13·94 | 6·07 | 14·39 | 12·94 | 13·00 | 20·04 | 2·83 | 103·71 |
| Mean | 0·91 | 1·34 | 0·43 | 2·37 | 15·93 | 17·89 | 16·49 | 15·19 | 19·64 | 11·81 | 9·50 | 533 | 116·83 |

No. 434. NANCOWRY.

Latitude N. 8° 0′. Longitude E. 93° 46′. Elevation 81 feet.

Administration: ANDAMAN SETTLEMENTS. Rainfall Province No. XXV.

| Year. | Inches of Rainfall. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
| 1873 | ? | ? | ? | ? | 6·64 | 17·56 | 11·50 | 12·64 | 10·72 | 10·98 | 14·43 | 9·00 | ? |
| 1874 | 1·01 | 2·70 | 2·33 | 4·21 | 16·03 | 15·26 | 10·54 | 13·50 | 13·61 | 19·07 | 5·94 | 4·47 | 108·67 |
| 1875 | 8·38 | 1·00 | 8·40 | 10·41 | 14·76 | 10·19 | 13·17 | 10·95 | 5·87 | 14·62 | 3·26 | 2·18 | 103·19 |
| 1876 | 3·37 | 2·09 | 1·60 | 11·29 | 7·69 | 16·02 | 10·44 | 9·80 | 4·49 | 17·34 | 9·92 | 12·72 | 106·68 |
| 1877 | 0·30 | 0·08 | 0·90 | 2·89 | 2·60 | 20·49 | 4·07 | 10·75 | 17·01 | 7·80 | 6·20 | 6·24 | 79·33 |
| 1878 | 1·49 | 0·03 | 0·89 | 2·73 | 10·68 | 4·64 | 17·59 | 14·73 | 10·23 | 13·56 | 16·82 | 7·20 | 100·59 |
| 1879 | 4·04 | 1·39 | 1·99 | 9·42 | 11·54 | 14·05 | 9·60 | 10·19 | 13·33 | 8·81 | 3·09 | 17·49 | 104·94 |
| 1880 | 7·68 | 0·14 | 2·20 | 8·36 | 15·27 | 7·98 | 12·10 | 9·02 | 5·83 | 16·36 | 13·93 | 7·91 | 106·78 |
| 1881 | 2·41 | 0·20 | 2·35 | 0·37 | 17·27 | 13·47 | 5·51 | 9·20 | 14·39 | 14·22 | 10·87 | 34·39 | 124·65 |
| 1882 | 1·65 | 0·56 | 0·55 | 7·47 | 17·70 | 12·66 | 26·82 | 6·24 | 4·92 | 25·77 | 25·89 | 11·11 | 141·34 |
| 1883 | 0·73 | 1·68 | 0·27 | 3·01 | 8·92 | 10·68 | 11·58 | 14·72 | 15·62 | 7·79 | 26·96 | 14·04 | 116·00 |
| Mean | 3·11 | 0·98 | 2·15 | 6·02 | 11·74 | 13·00 | 12·08 | 11·07 | 10·55 | 14·21 | 12·48 | 11·52 | 108·91 |
| 1884 | 2·63 | 5·26 | 1·99 | 2·78 | 20·55 | 13·06 | 17·12 | 14·85 | 8·95 | 7·78 | 7·27 | 13·91 | 116·15 |
| 1885 | 0·78 | 1·02 | 1·57 | 0·52 | 7·67 | 9·14 | 13·73 | 7·71 | 12·55 | 11·35 | 18·69 | 18·17 | 92·90 |
| 1886 | 5·08 | 0·52 | 0·31 | 1·26 | 17·57 | 14·07 | 14·68 | 16·95 | 12·57 | 11·99 | 25·23 | 7·61 | 127·84 |
| Mean | 3·04 | 1·28 | 1·95 | 4·98 | 12·49 | 12·81 | 12·75 | 11·52 | 10·72 | 13·39 | 12·75 | 11·89 | 109·57 |

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# APPENDIX B.

## AVERAGE ANNUAL RAINFALL OF 1,412 STATIONS IN INDIA AND ITS DEPENDENCIES.

The following table, referred to at page 147 of the text, gives in integral inches the normal average annual rainfall of all the stations which furnished the data for the Rainfall Chart of India published on a scale of 64 miles to the inch in 1884 and reproduced on a reduced scale in Plate II. The method of reduction followed in the computation of the averages is described in the text.

### PUNJAB (139 STATIONS).

| District. | Station. | Rain, inches. | District. | Station. | Rain, inches. |
|---|---|---|---|---|---|
| KOHAT | Kohat | 20 | MONTGOMERY | Montgomery | 10 |
| HAZARA | Abbottabad | 45 | | Gugera | 8 |
| | Haripur | 31 | | Dipalpur | 8 |
| | Mansahra | 36 | | Pakpattan | 8 |
| PESHAWAR | Peshawar | 14 | JHANG | Jhang | 11 |
| | Khalsa Khattak | 18 | | Chiniot | 14 |
| | Daudzai | 15 | | Shorkot | 11 |
| | Doaba | 13 | MOOLTAN | Mooltan | 7 |
| | Hashtnagar | 14 | | Shujabad | 8 |
| | Yusafzai | 21 | | Lodhran | 7 |
| | Katlang | 18 | | Mailsi | 4 |
| | Sawabi | 17 | | Sarai Sidhu | 7 |
| BANNU | Bannu | 13 | SHAHPUR | Shahpur | 15 |
| | Laki | 16 | | Bhera | 14 |
| | Isa Khel | 11 | | Khushab | 11 |
| | Mianwali | 12 | | Sakesar | 10 |
| DERA GHAZI KHAN | Dera Ghazi Khan | 7 | | Mitha Tiwana | 13 |
| | Rajanpur | 3 | GUJRAT | Gujrat | 31 |
| | Jampur | 5 | | Kharian | 34 |
| DERA ISMAIL KHAN | Dera Ismail Khan | 9 | | Phalia | 24 |
| | Kulachi | 8 | JHELUM | Jhelum | 24 |
| | Bhakkar | 7 | | Chakwal | 14 |
| | Leiah | 6 | | Pind Dadan Khan | 17 |
| MUZAFFARGARH | Muzaffargarh | 6 | | Talagang | 17 |
| | Alipur | 10 | RAWALPINDI | Rawalpindi | 33 |
| | Sinanwan | 5 | | Pindigheb | 17 |
| | Kot Adu | 18 | | Murree | 54 |

PUNJAB—*continued.*

| District. | Station. | Rain, Inches. |
|---|---|---|
| Ferozepore | Ferozepore | 23 |
| | Moga | 22 |
| | Zira | 28 |
| | Muktsar | 14 |
| Gujranwala | Gujranwala | 26 |
| | Wazirabad | 26 |
| | Hafizabad | 20 |
| | Mananwala | 12 |
| | Shekhupura | 11 |
| Lahore | Lahore | 21 |
| | Meean Meer | 27 |
| | Chunian | 17 |
| | Sharakpur | 14 |
| | Kasur | 19 |
| | Maghiala | 20 |
| Sialkot | Sialkot | 38 |
| | Daska | 28 |
| | Pasrur | 35 |
| | Zafarwal | 35 |
| | Rayá | 23 |
| Gurdaspur | Gurdaspur | 32 |
| | Pathankot | 50 |
| | Shakargarh | 46 |
| | Batala | 32 |
| | Dalhousie | 70 |
| | Madhopur | 60 |
| Amritsar | Amritsar | 26 |
| | Tarn Taran | 23 |
| | Ajnala | 20 |
| | Jandiala | 15 |
| | Raiya | 21 |
| Kangra | Dharmsala | 126 |
| | Kangra | 70 |
| | Nurpur | 75 |
| | Hamirpur | 54 |
| | Dera | 63 |
| Kangra—*contd.* | Kullu | 48 |
| | Plach | 45 |
| | Palampur | 108 |
| Hoshiarpur | Hoshiarpur | 36 |
| | Dasuya | 37 |
| | Garhshankar | 33 |
| | Una | 39 |
| Jullundur | Jullundur | 28 |
| | Phillour | 29 |
| | Nawashahr | 30 |
| | Nakodar | 28 |
| Simla | Simla | 70 |
| | Kotgarh | 67 |
| | Barauli | 60 |
| | Kot Khai | 61 |
| | Kasauli | 71 |
| Ludhiana | Ludhiana | 28 |
| | Simrala | 28 |
| | Jagraon | 22 |
| Umballa | Umballa | 37 |
| | Jagadhri | 42 |
| | Rupar | 29 |
| | Kharar | 36 |
| | Naraingarh | 43 |
| | Pipli | 29 |
| Sirsa | Sirsa | 15 |
| | Dabwali | 13 |
| | Fazilka | 13 |
| Rohtak | Rohtak | 20 |
| | Jhajjar | 22 |
| | Sampla | 22 |
| | Gohana | 22 |
| Hissar | Hissar | 16 |
| | Hansi | 16 |
| | Bhiwani | 17 |

PUNJAB—*concluded.*

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| Hissar—*contd.* | Fatahabad | 15 | Gurgaon—*contd.* | Palwal | 25 |
| | Barwala | 16 | | Nuh | 25 |
| Karnal | Karnal | 30 | | Firozpur | 20 |
| | Panipat | 25 | Delhi | Delhi | 27 |
| | Kaithal | 19 | | Lársauli | 25 |
| Gurgaon | Gurgaon | 28 | | Sonepat | 24 |
| | Rewari | 22 | | Ballabgarh | 23 |

NORTH-WESTERN PROVINCES (328 STATIONS).

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| Dehra Dun | Dehra Tahsil | 76 | Meerut | Sardhana | 29 |
| | Do. Observatory | 80 | | Meerut | 27 |
| | Mussooree | 96 | | Do. Observatory | 26 |
| | Landour | 91 | | Mawána | 31 |
| | Kalsi | 79 | | Bagpat | 23 |
| | Chakrata | 58 | | Hapur | 28 |
| | Ambari | 77 | | Ghaziabad | 23 |
| | Bhogpur | 123 | | Baraut | 30 |
| Saharanpur | Saharanpur | 37 | | Dantana | 27 |
| | Roorkee Tahsil | 42 | Bulandshahr | Sikandarabad | 26 |
| | Do. Observatory | 42 | | Bulandshahr | 26 |
| | Nakur | 32 | | Anupshahr | 29 |
| | Deoband | 33 | | Khurja | 27 |
| | Hardwar | 45 | | Narora | 28 |
| | Mohon | 64 | | Aurangabad | 27 |
| | Manglaur | 36 | | Dibai | 30 |
| Muzaffarnagar | Muzaffarnagar | 32 | Aligarh | Atrauli | 28 |
| | Shamli | 28 | | Iglas | 21 |
| | Budhána | 30 | | Khair | 22 |
| | Jauli Jánsath | 34 | | Aligarh | 26 |
| | Bhainswal | 27 | | Hathras | 27 |
| | Kandhla | 29 | | Sikandar Rao | 25 |
| | Khatauli | 38 | | Tappal | 21 |
| | Púr | 35 | | Akbarabad | 25 |

NORTH-WESTERN PROVINCES—*continued.*

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| Bijnor | Bijnor | 36 | Shahjahanpur —*contd.* | Khitár | 44 |
| | Nagina | 45 | | Mehrabad | 29 |
| | Najibabad | 47 | | Paliha | 35 |
| | Dhampur | 41 | Garhwál | Srinagar | 37 |
| | Chandpur | 38 | | Pauri | 51 |
| | Sherkot | 41 | Kumaun | Champáwat | 57 |
| Moradabad | Thakurdwara | 42 | | Pithoragarh | 47 |
| | Morádabad | 40 | | Almora | 39 |
| | Amroha | 38 | | Ranikhet | 46 |
| | Hasanpur | 33 | | Naini Tal | 91 |
| | Sambhal | 36 | | Haldwani | 76 |
| | Bilári | 39 | Tarai | Kashipur | 42 |
| Budaun | Bisauli | 36 | | Rudarpur | 44 |
| | Gumnaur | 27 | | Kilpuri | 56 |
| | Sahaswán | 29 | Muttra | Kosi | 24 |
| | Budaun | 32 | | Chata | 22 |
| | Datáganj | 32 | | Mat | 21 |
| | Asadpur | 26 | | Muttra | 26 |
| | Salimpur | 34 | | Mahaban | 22 |
| Bareilly | Bareilly (Cutchery) | 41 | | Sadabad | 21 |
| | Do. Observatory | 42 | | Noh | 22 |
| | Karor Tahsil | 40 | | Aring | 21 |
| | Mirganj | 41 | Etah | Kasganj | 26 |
| | Nawabganj | 47 | | Etah | 27 |
| | Aonla | 39 | | Aliganj | 34 |
| | Faridpur | 43 | | Jalesor | 23 |
| | Baheri | 46 | | Sakit | 27 |
| | Dhukia | 41 | | Azamnagar | 26 |
| | Parewa | 49 | Farrukhabad | Kaimganj | 29 |
| Pilibhit | Pilibhit | 50 | | Aligarh | 32 |
| | Bisalpur | 43 | | Farrukhabad | 30 |
| | Puranpur | 52 | | Chhibramau | 28 |
| Shahjahanpur | Pawáyan | 41 | | Kanauj | 30 |
| | Tilhar | 35 | | Thatia Tirwa | 29 |
| | Shahjahanpur | 38 | | Muhammadabad | 27 |
| | Jalalabad | 33 | | Sakatpur | 25 |

NORTH-WESTERN PROVINCES—*continued.*

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| | Mustafabad | 27 | | Farah | 23 |
| | Shikohabad | 29 | | Irádatnagar | 26 |
| | Mainpuri | 28 | | Sirhendi | 23 |
| | Bhongaon | 30 | AGRA—*contd.* | Khandauli | 23 |
| | Karhal | 27 | | Jagner | 20 |
| | Dhandans | 34 | | Báh | 22 |
| | Gopalpur | 29 | | Narki | 22 |
| MAINPURI | Sarságanj | 32 | | Madhogarh | 29 |
| | Pharhia | 27 | | Jalaun | 30 |
| | Ghiror | 29 | | Kalpi | 29 |
| | Kuraoli | 28 | JALAUN | Ata | 32 |
| | Samaon | 30 | | Kanch | 31 |
| | Kusmára | 32 | | Orai | 29 |
| | Kayáli | 28 | | Bhadek | 30 |
| | Etawah | 28 | | Moth | 32 |
| | Bharthna | 31 | | Garotha | 34 |
| | Bidhuna | 28 | JHANSI | Man Rámpur | 39 |
| | Auraiya | 31 | | Jhansi Tahsil | 35 |
| | Phaphund | 30 | | Do. Observatory | 36 |
| | Lakhna | 31 | | Lalitpur | 38 |
| | Bela | 30 | | Mahroni | 38 |
| ETAWAH | Kudarkot | 30 | LALITPUR | Talbahat | 37 |
| | Sehor | 29 | | Nárhat | 40 |
| | Jaswantnagar | 27 | | Bilhaur | 29 |
| | Barhpura | 29 | | Rasulabad | 28 |
| | Chakarnagar | 21 | | Derapur | 27 |
| | Sandans | 33 | | Shiurajpur | 31 |
| | Ajitmal | 31 | | Akbarpur | 29 |
| | Agra Tahsil | 25 | | Bhognipur | 26 |
| | Do. Observatory | 25 | CAWNPORE | Cawnpore | 29 |
| | Fatehpur Sikri | 24 | | Ghatampur | 30 |
| | Khairagarh | 23 | | Sarh Salimpur | 28 |
| AGRA | Fátehabad | 23 | | Narwal | 28 |
| | Panahat | 25 | | Sikandra | 29 |
| | Firozabad | 24 | | Sachendi | 29 |
| | Itimádpur | 25 | | | |

NORTH-WESTERN PROVINCES—*continued.*

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| | Kora | 30 | | Tirhita | 33 |
| | Kalianpur | 30 | | Jaspura | 33 |
| | Fatehpur | 29 | | Pahari | 33 |
| | Gházipur Táhsil | 31 | | Manka | 35 |
| | Do. Thána | 28 | | Sinduha | 34 |
| | Khaga | 30 | BANDA—*contd.* | Chhibu | 39 |
| FATEHPUR | Khakhreru | 33 | | Bargarh | 37 |
| | Bindki | 30 | | Kalinjar | 42 |
| | Hathgaon | 32 | | Tachawan | 39 |
| | Ekdala | 34 | | Manikpur | 40 |
| | Jahanabad | 30 | | | |
| | Khajuha | 28 | | Sirathu | 32 |
| | Haswa | 32 | | Manjhanpur | 31 |
| | | | | Allahabad Tahsil | 38 |
| | Hamirpur | 32 | | Do. Observatory | 41 |
| | Rath | 32 | | Soraon | 33 |
| | Maskara | 28 | | Phulpur | 34 |
| | Maudha | 33 | | Handia | 40 |
| | Mahoba | 33 | | Meja | 40 |
| HAMIRPUR | Kulpahar | 34 | ALLAHABAD | Karchana | 40 |
| | Sungara | 31 | | Barah | 37 |
| | Jalalpur | 32 | | Karra | 31 |
| | Panwári | 30 | | Chail | 36 |
| | Gharauli | 36 | | Arail | 40 |
| | Sumerpur | 32 | | Kiwai | 38 |
| | | | | Sikandra | 31 |
| | Pailáni | 32 | | Khairagarh | 44 |
| | Banda | 34 | | | |
| | Sihonda | 36 | | Mariahu | 35 |
| | Bahera | 35 | | Machlishahr | 36 |
| | Badausa | 37 | | Kerákat | 41 |
| BANDA | Kamasin | 34 | | Jaunpur | 41 |
| | Karwi | 38 | JAUNPUR | Kutahan | 41 |
| | Mau | 39 | | Augli | 39 |
| | Simauni | 33 | | Kohrali | 38 |
| | Augasi | 32 | | Katgarh | 40 |
| | Darsenda | 33 | | Badlapur | 38 |

## NORTH-WESTERN PROVINCES—*concluded.*

| District. | Station | Rain, inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| JAUNPUR—*contd.* | Mádhpur | 41 | GHAZÍPUR—contd. | Zahurabad | 36 |
| | Banoha | 37 | | Karun | 39 |
| | Jalalpur | 34 | | Shadiabad | 38 |
| MIRZAPUR | Mirzapur | 42 | | Bandoi | 38 |
| | Korh | 38 | BALLIA | Rasra | 39 |
| | Chakia | 40 | | Ballia | 39 |
| | Chunar | 41 | | Nagara | 39 |
| | Robertsganj | 44 | | Garwar | 80 |
| | Dudhi | 45 | | Sikandarpur | 41 |
| | Ghoráwal | 46 | | Tilheli | 43 |
| | Halia | 44 | AZAMGARH | Deogaon | 34 |
| | Lálganj | 45 | | Mahul | 39 |
| | Agori | 44 | | Azamgarh | 40 |
| BENARES | Benares Tahsil | 39 | | Jiwanpur | 38 |
| | Do. Observatory | 42 | | Muhammadabad | 38 |
| | Chandauli | 44 | | Nizamabad | 41 |
| | Gangapur | 38 | | Chiriakot | 35 |
| | Ramnagar | 40 | | Ghosi | 41 |
| | Mughal Sarai | 40 | | Sagri | 47 |
| | Mirza Murad | 40 | GORAKHPUR | Bansgaon | 44 |
| | Harahawa | 39 | | Deoria | 44 |
| | Chaubepur | 38 | | Gorakhpur | 49 |
| | Amra | 38 | | Do. Observatory | 49 |
| | Phulpur | 38 | | Maharajganj | 52 |
| | Rohania | 39 | | Mansurganj | 51 |
| | Balua | 40 | | Hata | 46 |
| GHAZIPUR | Sayyidpur | 35 | | Parauna | 47 |
| | Zamania | 32 | BASTI | Captainganj | 40 |
| | Ghazipur | 38 | | Harraiya | 43 |
| | Korantadih | 40 | | Bansi | 50 |
| | Muhammadabad | 40 | | Khalilabad | 45 |
| | Bahanabad | 37 | | Domariaganj | 52 |
| | Dhánapur | 35 | | Basti | 43 |
| | Rastipur | 38 | | | |

## OUDH (50 STATIONS).

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| KHERI | Kheri | 42 | BARABANKI | Nawabganj | 36 |
| | Muhamdi | 44 | | Sanehighat | 43 |
| | Gokarnath | 47 | | Fatehpur | 34 |
| | Nighasan | 42 | | Haidargarh | 35 |
| SITAPUR | Sitapur | 35 | LUCKNOW | Lucknow Tahsil | 35 |
| | Biswan | 36 | | Do. Observatory | 36 |
| | Bari | 32 | | Malihabad | 30 |
| | Misrikh | 36 | | Mohanlalganj | 31 |
| HARDOI | Shahabad | 36 | UNAO | Safipur | 26 |
| | Hardoi | 32 | | Mohan | 32 |
| | Sandila | 30 | | Unao | 30 |
| | Bilgram | 28 | | Purwa | 30 |
| BAHRAICH | Nanpara | 43 | RAE BARELI | Digbijaiganj | 30 |
| | Bahraich | 43 | | Moharajganj | 31 |
| | Kurasar | 42 | | Rae Bareli | 30 |
| | Kaisarganj | 40 | | Lalganj | 27 |
| GONDA | Utraula | 46 | | Dalmau | 25 |
| | Gonda | 43 | | Salon | 38 |
| | Tarahganj | 37 | SULTANPUR | Amethi | 35 |
| | Begamganj | 35 | | Musafirkhana | 40 |
| FYZABAD | Fyzabad | 41 | | Sultanpur | 41 |
| | Akbarpur | 39 | | Kadipur | 34 |
| | Bikapur | 32 | PARTABGARH | Partabgarh | 36 |
| | Tanda | 38 | | Pati | 37 |
| | | | | Bihar | 36 |
| | | | | Kunda | 33 |

## RAJPUTANA (21 STATIONS).

| Station. | Rain, Inches. | Station. | Rain, Inches. |
|---|---|---|---|
| Bickaneer | 14 | Jodhpore | 12 |
| Ulwur | 27 | Ajmere | 23 |
| Bhurtpore | 23 | Nusseerabad | 20 |
| Jeypore | 24 | Beawar | 21 |
| Sambhar | 19 | Tonk | 26 |

RAJPUTANA—*continued.*

| Station. | Rain, Inches. | Station. | Rain, Inches. |
|---|---|---|---|
| Deoli | 35 | Mount Abu | 64 |
| Shahpoora | 23 | Kotra | 33 |
| Erinpura | 14 | Kherwara | 28 |
| Kotah | 35 | Banswara | 46 |
| Jhalrapatan | 38 | Pachpadra | 13 |
| Oodeypore | 25 | | |

CENTRAL INDIA (14 STATIONS).

| Station. | Rain, Inches. | Station. | Rain, Inches. |
|---|---|---|---|
| Goona | 39 | Agar | 36 |
| Morar | 33 | Neemuch | 35 |
| Rewah | 59 | Rutlam | 40 |
| Sutna | 39 | Indore | 37 |
| Nagode | 45 | Sirdarpore | 33 |
| Nowgong | 41 | Manpur | 40 |
| Bhopal | 49 | Maihar | 47 |

BENGAL (152 STATIONS).

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| BURDWAN | Burdwan | 58 | MIDNAPORE—*contd.* | Contai | 74 |
| | Cutwa | 55 | | Garbeta | 57 |
| | Culna | 53 | HOOGHLY | Hooghly | 60 |
| | Raneegunge | 48 | | Serampore | 63 |
| | Bood-bood | 55 | | Jehanabad | 68 |
| BANKOORA | Bankoora | 56 | HOWRAH | Howrah | 63 |
| | Bishnupore | 53 | | Moheshraka | 63 |
| | Maliara | 44 | 24-PERGUNNAHS | Saugor Island | 74 |
| BEERBHOOM | Soory | 55 | | Calcutta | 66 |
| | Rampore Haut | 52 | | Alipore | 66 |
| MIDNAPORE | Midnapore | 58 | | Busseerhat | 62 |
| | Tumlook | 61 | | Baraset | 60 |
| | Ghatal | 66 | | Diamond Harbour | 69 |

BENGAL—*continued.*

| District. | Station. | Rain, Inches. |
|---|---|---|
| 24-Pergunnahs —*contd.* | Barripore | 69 |
| | Satkhira | 66 |
| | Barrackpore | 60 |
| | Dum-Dum | 62 |
| Nuddea | Kishnaghur | 57 |
| | Bongong | 61 |
| | Metherpore | 56 |
| | Chooadangah | 65 |
| | Kooshtea | 67 |
| | Ranaghat | 55 |
| Jessore | Jessore | 68 |
| | Narail | 64 |
| | Khoolna | 68 |
| | Jhenidah | 67 |
| | Bagirhat | 69 |
| | Magoora | 67 |
| Moorshedabad | Berhampore | 56 |
| | Lalbag | 53 |
| | Jungypore | 53 |
| | Azimganj | 55 |
| | Kandi | 52 |
| Dinagepore | Dinagepore | 77 |
| Maldah | Maldah | 55 |
| Rajshahye | Bauleah | 61 |
| | Nattore | 65 |
| Rungpore | Rungpore | 86 |
| | Bhabaniganj | 78 |
| | Kurigram | 91 |
| | Titalya | 117 |
| Bogra | Bogra | 80 |
| | Sherpur | 81 |
| | Panchabibi | 69 |
| Pubna | Pubna | 68 |
| | Serajgunj | 67 |
| Darjeeling | Darjeeling | 120 |
| Jalpaiguri | Jalpaiguri | 126 |
| | Baxa | 221 |
| | Boda | 104 |
| Cooch Behar | Cooch Behar | 135 |
| | Dinhata | 124 |
| Dacca | Dacca | 75 |
| | Moonsheegunge | 91 |
| | Maniokgunge | 65 |
| Furreedpore | Furreedpore | 73 |
| | Goalundo | 69 |
| | Madaripore | 70 |
| Backergunge | Burrisal | 79 |
| | Perozepore | 70 |
| | Patooakhally | 100 |
| | Bhola | 91 |
| | Dowlatkhan | 96 |
| Mymensingh | Mymensingh | 98 |
| | Jamalpur | 88 |
| | Atia | 71 |
| | Kishorganj | 95 |
| Chittagong | Chittagong | 104 |
| | Cox's Bazar | 145 |
| Noakholly | Noakholly | 110 |
| | Fenny | 109 |
| Tipperah | Comillah | 93 |
| | Chandpore | 91 |
| | Brahmunberiah | 83 |
| Chittagong Hill Tracts. | Rangamati Hill | 100 |
| Hill Tipperah | Agartalla | 81 |
| Patna | Patna | 42 |
| | Behar | 40 |
| | Barh | 41 |
| | Dinapore | 40 |
| | Dehree | 42 |
| Gya | Gya | 40 |
| | Nowada | 39 |

## BENGAL—*concluded.*

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| Gya—*contd.* | Aurungabad | 40 | | Nya Doomka | 57 |
| | Jehanabad | 38 | | Rajmehal | 53 |
| Shahabad | Arrah | 45 | Sonthal Pergunnahs. | Deoghur | 53 |
| | Sasseram | 43 | | Jamtara | 48 |
| | Buxar | 43 | | Pakour | 61 |
| | Bhubooah | 44 | | Godda | 52 |
| Mozufferpore | Mozufferpore | 43 | | Cuttack | 57 |
| | Hajeepore | 43 | | Jajpore | 54 |
| | Seetamurhee | 44 | Cuttack | Kendrapara | 56 |
| Durbhunga | Durbhunga | 45 | | Jagatsingpur | 47 |
| | Mudhoobunnee | 46 | | False Point | 72 |
| | Tajpore | 43 | Pooree | Pooree | 56 |
| Sarun | Chupra | 39 | | Khardaha | 59 |
| | Sewan | 46 | | Banpur | 63 |
| | Gopalganj | 41 | Balasore | Balasore | 67 |
| Champaran | Chumparun or Motiharee | 48 | | Bhuddruck | 57 |
| | Bettiah | 54 | | Jellasore | 64 |
| | Segowlie | 52 | | Sorah | 59 |
| Monghyr | Monghyr | 50 | | Chandbally | 58 |
| | Begoo Serai | 40 | | Barreepudda | 60 |
| | Jamooee | 44 | Hazaribagh | Hazaribagh | 49 |
| Bhagalpur | Bhagalpur | 47 | | Pachamba | 50 |
| | Soopole | 56 | Lohardaga | Ranchee | 48 |
| | Muddehpoora | 56 | | Palamow | 42 |
| | Banka | 52 | Singbhoom | Chybassa | 56 |
| Purneah | Purneah | 75 | Manbhoom | Purulia | 50 |
| | Kissengunge | 83 | | Gobindpur | 52 |
| | Arrareah | 74 | | | |

## ASSAM (28 Stations).

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| Sylhet | Sylhet | 156 | | Silchar | 118 |
| | Sunamganj | 192 | | | |
| | Karimganj | 155 | Cachar | Hailakandi | 104 |
| | Habiganj | 96 | | Jafferbund | 99 |

ASSAM—*continued.*

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| Goalpara | Goalpara | 95 | Sibsagar—*contd.* | Golaghat | 75 |
| | Dhubri | 92 | | Nazira | 87 |
| Garo Hills | Tura | 122 | Lakhimpur | Dibrugarh | 115 |
| Kamrup | Gauhati | 70 | | Sadiya | 105 |
| | Barpeta | 89 | | North Lakhimpur | 115 |
| Darrang | Tezpur | 78 | | Jaipur | 98 |
| | Mangaldai | 73 | Khasi and Jaintia Hill. | Cherra Poonjee | 489 |
| Nowgong | Nowgong | 81 | | Shillong | 87 |
| Sibsagar | Sibsagar | 95 | Naga Hills | Kohima | 88 |
| | Jorhat | 75 | | Molong-kong | 96 |
| | | | | Samagoodting | 55 |

CENTRAL PROVINCES (73 STATIONS).

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| Nagpur | Nagpur | 44 | Jubbulpore | Jubbulpore | 52 |
| | Ramtek | 48 | | Sihora | 43 |
| | Katol | 44 | | Murwara | 41 |
| | Umrer | 44 | Saugor | Saugor | 46 |
| Bhandara | Bhandara | 52 | | Kurai | 44 |
| | Sakoli | 53 | | Rehli | 47 |
| | Tirora | 46 | | Banda | 40 |
| Chanda | Chanda | 51 | Damoh | Damoh | 46 |
| | Mul | 46 | | Hatta | 39 |
| | Brahmapuri | 55 | | Tejgarh | 46 |
| | Warora | 46 | | Pathuria | 36 |
| | Chimur | 45 | | Bathyagarh | 35 |
| | Sironcha | 44 | Seoni | Seoni | 49 |
| Wardha | Wardha | 39 | | Lakhnadon | 48 |
| | Hinganghat | 41 | Mandla | Mandla | 51 |
| | Arvi | 35 | | Narainganj | 49 |
| Balaghat (Burha). | Balaghat | 66 | | Pendrai | 45 |
| | Lanji | 66 | | Bechia | 51 |
| | Maw | 47 | | Ramgarh | 49 |
| | Bihar | 58 | | Shaipura | 53 |
| | Katangi | 44 | | Sailwara | 40 |

## CENTRAL PROVINCES—*continued.*

| District. | Station. | Rain, inches. | District. | Station. | Rain, inches. |
|---|---|---|---|---|---|
| Betul | Badnur | 42 | Nimar | Khandwa | 33 |
| | Multai | 36 | | Burhanpur | 29 |
| | Atner | 32 | | Asirgarh | 33 |
| | Chicholi | 41 | | Mortakka | 30 |
| | Shahpur | 45 | Raipur | Raipur | 50 |
| Chhindwara | Chhindwara | 43 | | Drug | 38 |
| | Sausar | 37 | | Dhamtari | 42 |
| Hoshangabad | Hoshangabad | 46 | | Simga | 42 |
| | Sohagpur | 42 | Sambalpur | Sambalpur | 58 |
| | Seoni | 42 | | Bargarh | 49 |
| | Harda | 43 | Bilaspur | Bilaspur | 47 |
| | Pachmarhi | 73 | | Mungeli | 43 |
| Narsinghpur | Narsinghpur | 47 | | Seorinarayan | 48 |
| | Gadarwara | 48 | | Saragaon | 46 |
| | Chhindwara | 39 | | Sargaon | 30 |
| | Mohapani | 41 | | | |

## BERARS (9 STATIONS).

| Station. | Rain, inches. | Station. | Rain, inches. |
|---|---|---|---|
| Makhla | 61 | Buldana | 31 |
| Chikalda | 60 | Basim | 38 |
| Ellichpur | 29 | Yeotmal | 42 |
| Amraoti | 31 | Wun | 39 |
| Akola | 27 | | |

## HYDERABAD (23 STATIONS).

| Station. | Rain, inches. | Station. | Rain, inches. |
|---|---|---|---|
| Bolarum | 28 | Ibrahimpatan | 30 |
| Hyderabad | 29 | Medak | 28 |
| Secunderabad | 28 | Indur | 30 |
| Lingsugur | 22 | Yelgandal | 27 |
| Aurangabad | 28 | Khamam | 27 |

HYDERABAD—*continued.*

| Station. | Rain, Inches. | Station. | Rain, Inches. |
|---|---|---|---|
| Hingoli | 37 | Shorapur | 21 |
| Nalgonda | 25 | Mominabad | 32 |
| Nagar Karnul | 32 | Raichur | 23 |
| Bidar | 35 | Bheer | 30 |
| Naldurg | 29 | Parbhani | 33 |
| Nandair | 34 | Jalna | 32 |
| Gulbarga | 26 | | |

BOMBAY (305 STATIONS).

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| UPPER SIND FRONTIER. | Jacobabad | 5 | HYDERABAD —*contd.* | Bago Tando | 7 |
| | Thul | 6 | | Tando Adam | 5 |
| | Kashmor | 2 | | Tando Muhammad Khan | 5 |
| | Shikarpur | 5 | | Naushahro | 4 |
| | Sukkur | 5 | | Moro | 5 |
| | Garhi Yasin | 4 | | Sakrand | 6 |
| | Larkhana | 5 | | Mirpur Khas | 10 |
| | Kambar | 4 | | Badin | 7 |
| | Ratodero | 3 | | Shahdadpur | 4 |
| | Sijawal | 3 | | Kandiaro | 3 |
| | Labdarya | 3 | | Dero Mohbat | 6 |
| SHIKARPUR | Mehar | 6 | KURRACHEE | Kurrachee | 7 |
| | Nasirabad | 4 | | Manora | 7 |
| | Kakar | 7 | | Kotri | 7 |
| | Tigar | 5 | | Bula | 8 |
| | Rohri | 6 | | Schwan | 8 |
| | Saidpur | 4 | | Dadu | 6 |
| | Ghotki | 3 | | Johi | 9 |
| | Mirpur | 4 | | Manjhand | 8 |
| | Ubauro | 3 | | Tatta | 8 |
| HYDERABAD | Hyderabad | 8 | | Jerruck | 7 |
| | Hala | 7 | | Sakro | 10 |
| | Tando Alahyar | 5 | | Katri Ghorabari | 10 |
| | Tharu Shah | 5 | | Keti Bandar | 9 |

BOMBAY—*continued.*

| District. | Station. | Rain, Inches. |
|---|---|---|
| Kurrachee —*contd.* | Mirpur Batoro | 8 |
| | Belo | 10 |
| | Mugalbhin | 10 |
| | Shahbandar | 11 |
| Thar and Parkar | Umarkot | 11 |
| | Nagar | 16 |
| | Mitti | 12 |
| | Khipra | 10 |
| Cutch | Bhuj | 15 |
| | Rhapur | 17 |
| | Mandvi | 21 |
| | Anjar | 15 |
| | Bhachan | 20 |
| | Bapur | 18 |
| | Mundra | 20 |
| | Jakhawn | 18 |
| | Lakhpat | 15 |
| Kattywar | Wadhwan | 19 |
| | Jhinjhuwara | 17 |
| | Bhaunagar | 26 |
| | Botad | 23 |
| | Sihor | 25 |
| | Mahuwa | 24 |
| | Bagasra | 25 |
| | Jetpur | 30 |
| | Palitana | 21 |
| | Wala | 26 |
| | Jasdan | 26 |
| | Lathi | 23 |
| | Songad | 24 |
| | Kundla | 25 |
| | Danta | 30 |
| | Chok | 22 |
| | Gondal | 30 |
| | Dhoraji | 36 |
| | Talaja | 27 |
| Kattywar —*contd.* | Umrala | 22 |
| | Godadar | 23 |
| | Vichia | 20 |
| | Chotila | 26 |
| | Gariadhar | 25 |
| | Lakhapadar | 20 |
| Palanpur | Palanpur | 31 |
| | Tharad | 17 |
| | Santalpur | 18 |
| Mahi Kanta | Sadra | 28 |
| | Edar | 38 |
| | Ghadwara | 29 |
| | Katosan | 24 |
| | Samlaji | 41 |
| | Posina | 28 |
| | Pol | 34 |
| Rewakanta | Bariya | 40 |
| | Lunawara | 39 |
| | Sunth | 49 |
| | Rajpipla | 40 |
| | Pandri | 33 |
| | Wadia | 43 |
| | Balasinor | 33 |
| | Chota Udepur | 43 |
| | Dorka | 40 |
| Ahmedabad | Ahmedabad | 30 |
| | Dholka | 35 |
| | Dhandhuka | 24 |
| | Sanand | 31 |
| | Viramgam | 29 |
| | Parantij | 31 |
| | Morasa | 37 |
| | Gogo | 26 |
| | Dholera | 29 |
| Panch Mahals | Godhra Dispensary | 42 |
| | Dohad | 33 |

BOMBAY—*continued.*

| District. | Station. | Rain, Inches. |
|---|---|---|
| Panch Mahals —*contd.* | Halol | 48 |
| | Jhalod | 35 |
| | Jambughora | 49 |
| | Kalol | 38 |
| Kaira | Kaira Civil Hospital | 32 |
| | Borsad | 32 |
| | Kapadwanj | 32 |
| Broach | Broach | 39 |
| | Jambusar | 33 |
| | Amod | 34 |
| | Wagra | 27 |
| | Ankleswar | 37 |
| Surat | Surat Civil Hospital | 42 |
| | Bardoli | 48 |
| | Bulsar | 72 |
| Khandesh | Dhulia | 20 |
| | Amalner | 24 |
| | Parola | 27 |
| | Erandol | 24 |
| | Pachora | 23 |
| | Bhadgaon | 28 |
| | Chalisgaon | 24 |
| | Pimpalner | 26 |
| | Nizampur | 23 |
| | Nandurbar | 29 |
| | Taloda | 34 |
| | Shahada | 28 |
| | Virdel | 18 |
| | Shirpur | 20 |
| | Chopra | 30 |
| | Sauda | 21 |
| | Yawal | 30 |
| | Raver | 28 |
| | Bhusawal | 31 |
| | Edalabad | 23 |
| Khandesh —*contd.* | Nasirabad | 29 |
| | Jamner | 31 |
| Nasik | Nasik | 27 |
| | Sinnar | 23 |
| | Igatpuri | 121 |
| | Dindori | 29 |
| | Niphad | 19 |
| | Chandor | 25 |
| | Yeola | 21 |
| | Malegaon | 23 |
| | Nandgaon | 21 |
| | Baglan | 18 |
| | Kalwan | 35 |
| | Peint | 88 |
| Ahmednagar | Ahmednagar | 26 |
| | Parner | 25 |
| | Shrigonda | 23 |
| | Karjat | 33 |
| | Jamkhed | 31 |
| | Sheogaon | 29 |
| | Newasá | 27 |
| | Rahuri | 22 |
| | Kopargaon | 19 |
| | Sangamner | 21 |
| | Akola | 24 |
| Poona | Poona | 30 |
| | Khed | 29 |
| | Junnar | 29 |
| | Sirúr | 23 |
| | Indápur | 26 |
| | Supa | 20 |
| | Saswad | 27 |
| | Kharkála | 76 |
| | Paud | 64 |
| | Ghora | 30 |
| | Bárámati | 27 |

BOMBAY—*continued.*

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| Poona—*contd.* | Jejuri | 26 | Belgaum—*contd.* | Gokak | 21 |
| | Talegaon | 44 | | Athni | 25 |
| | Lanauli | 162 | Dharwar | Dharwar | 33 |
| Sholápur | Sholápur | 29 | | Hubli | 26 |
| | Bársi | 29 | | Nawalgund | 22 |
| | Mádha | 22 | | Nargund | 22 |
| | Karmala | 21 | | Gadag | 25 |
| | Pandharpur | 23 | | Mandargi | 18 |
| | Sangola | 20 | | Bankápur | 26 |
| | Málsiras | 19 | | Ranibennur | 21 |
| Sátára | Sátára | 40 | | Hangal | 31 |
| | Medha | 71 | | Karajgi | 25 |
| | Wai | 34 | | Kalghatgi | 29 |
| | Khandála | 21 | | Kod | 25 |
| | Koregaon | 30 | | Ron | 24 |
| | Dahiwari | 23 | | Dewar Hubli | 32 |
| | Warúj | 24 | Kaladgi | Kaladgi | 23 |
| | Karád | 30 | | Indi | 21 |
| | Pátan | 68 | | Muddebihal | 21 |
| | Vita | 27 | | Sindgi | 20 |
| | Peth | 28 | | Bágewári | 21 |
| | Shirala | 37 | | Bijapur | 23 |
| | Tasgaon | 28 | | Bágalkot | 20 |
| | Malcolm Peth (Mahableshwar). | 252 | | Badami | 21 |
| Kolhapur | Kolhapur | 39 | | Hungund | 23 |
| | Alta | 26 | | Bilgi | 20 |
| | Baura | 255 | | Ilkal | 20 |
| Belgaum | Belgaum | 48 | Kanara | Karwar | 115 |
| | Chandgad | 83 | | Coompta | 137 |
| | Sampgaon | 31 | | Ankola | 125 |
| | Bidi | 70 | | Honawar | 139 |
| | Chikori | 27 | | Bhatkal | 143 |
| | Hukeri | 19 | | Siddapur | 99 |
| | Parasgad | 28 | | Sirsi | 89 |
| | Murgod | 26 | | Mallapur | 89 |
| | | | | Mundgod | 41 |

## BOMBAY—*concluded.*

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| Kanara—*contd.* | Haliyál | 35 | Colaba—*contd.* | Roha | 114 |
| | Supa | 83 | | Mangaon | 123 |
| Sawant Wari | Sawant Wari | 175 | | Mahad | 118 |
| | Amboli | 306 | | Janjira | 95 |
| | Banda | 150 | Tanná | Tanná | 98 |
| | Kural | 133 | | Umbargaon | 60 |
| Ratnagiri | Ratnagiri | 104 | | Dahanu | 66 |
| | Vingurla | 113 | | Mahim | 61 |
| | Malwan | 102 | | Bassein | 79 |
| | Deogarh | 92 | | Wara | 94 |
| | Rájápur | 123 | | Shahapur | 109 |
| | Sangameshwar | 147 | | Matheran | 247 |
| | Chiplun | 149 | Tanná | Murbad | 89 |
| | Guhagar | 106 | | Bhiwandi | 96 |
| | Khed | 132 | | Karjat | 128 |
| | Dapoli | 136 | | Khalapur | 111 |
| | Mandangarh | 153 | | Panwel | 101 |
| Bombay | Colaba | 74 | | Kanjna | 92 |
| | Fort | 76 | | Kalyan | 94 |
| | Byculla | 79 | | Mokhara | 108 |
| Colaba | Alibagh | 83 | | Jawhár | 122 |
| | Pen | 107 | | | |

## MYSORE AND COORG (10 STATIONS).

| Station. | Rain, Inches. | Station. | Rain, Inches. |
|---|---|---|---|
| Bangalore | 36 | Chitaldroog | 25 |
| Kolar | 32 | Mercara | 121 |
| Tumkur | 33 | Chikmagalur | 33 |
| Mysore | 29 | Hassan | 25 |
| Shimoga | 29 | Harihar | 20 |

## MADRAS (231 STATIONS).

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| Ganjam | Aska | 45 | Ganjam—*contd.* | Chatrapur | 42 |
| | Calingapatam | 39 | | Chicacole | 37 |

MADRAS—*continued.*

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| Ganjam—*contd.* | Ganjam | 41 | Godavari—*contd.* | Palaveram | 40 |
| | Gopalpur | 39 | | Prattipadu | 32 |
| | Ichápur | 41 | | Rahittapuram | 32 |
| | Pundi | 32 | | Rajahmundry | 37 |
| | Parlákimedi | 46 | | Ramachandrapuram | 40 |
| | Purushottapur | 43 | | Sivakodu | 40 |
| | Russellkonda | 50 | | Tanuku | 34 |
| | Sompet | 38 | | Tuni | 34 |
| | Suradn | 48 | | Yernagudem | 32 |
| | Tekkali | 38 | | Bhadráchalam | 35 |
| | Udayagiri | 52 | Kistna | Masulipatam | 37 |
| Vizagapatam | Anákápalle | 30 | | Bapatla | 31 |
| | Belacheron | 40 | | Bezvada | 33 |
| | Bimlipatam | 32 | | Gudivada | 34 |
| | Chipurupalle | 38 | | Guntúr | 34 |
| | Koraput | 44 | | Mandigama | 29 |
| | Kuppili | 39 | | Narsaraopet | 28 |
| | Narsapatnam | 35 | | Palnad | 28 |
| | Palkonda | 39 | | Repálle | 39 |
| | Párvatipur | 39 | | Sattenapalle | 27 |
| | Rayaghadda | 31 | | Vinukonda | 22 |
| | Salúr | 40 | Nellore | Darsi | 19 |
| | Veeravilly | 40 | | Devarayapalle | 31 |
| | Vizianagram | 38 | | Gúdúr | 30 |
| | Waltair | 42 | | Iskapalle | 36 |
| | Yellamanchili | 35 | | Handúkúr | 27 |
| Godavari | Amalapuram | 43 | | Kanigiri | 17 |
| | Bhimavaram | 36 | | Kavali | 33 |
| | Chintalapad | 30 | | Kistnapatam | 37 |
| | Cocanada | 37 | | Monapalem | 37 |
| | Coringa | 36 | | Nellore | 35 |
| | Ellore | 35 | | Ongole | 25 |
| | Narsápur | 40 | | Pádarti | 23 |
| | Peddápuram | 31 | | Pákala | 24 |
| | Pentapadda | 33 | | Ramayapatam | 30 |
| | Pithapuram | 28 | | Rapur | 34 |

## MADRAS—*continued.*

| District. | Station. | Rain, Inches. |
|---|---|---|
| Nellore—*contd.* | Tada | 42 |
| | Udayagiri | 23 |
| | Venkatagiri | 31 |
| Kurnool | Cumbum | 22 |
| | Koilkuntla | 23 |
| | Kurnool | 30 |
| | Markapur | 21 |
| | Nandikotkur | 32 |
| | Nandyál | 34 |
| | Pattikonda | 20 |
| | Ramallakot | 29 |
| | Sirvel | 30 |
| Bellary | Adoni | 27 |
| | Atur | 22 |
| | Anantapur | 20 |
| | Bellary Fort | 18 |
| | Dharmavaram | 19 |
| | Gooty | 22 |
| | Harpanahalli | 21 |
| | Hindupur | 22 |
| | Hospet | 25 |
| | Huvinahadgalli | 21 |
| | Kudligi | 22 |
| | Madakasira | 26 |
| | Penukonda | 22 |
| | Rayadrug | 18 |
| | Ramandrug | 37 |
| | Tadpatri | 21 |
| Guddapah | Badvel | 23 |
| | Cuddapah | 27 |
| | Guvalcheravu | 24 |
| | Jammalamadugu | 18 |
| | Kadiri | 25 |
| | Madanapalle | 26 |
| | Nundialumpet | 27 |
| Cuddapah—*contd.* | Piler | 28 |
| | Pulivendla | 19 |
| | Pullampet | 32 |
| | Proddutur | 22 |
| | Rajampet | 34 |
| | Rayachoti | 19 |
| | Vanupully | 26 |
| | Sidhout | 28 |
| | Vayalpad | 25 |
| | Vontimitta | 36 |
| North Arcot | Arcot | 33 |
| | Chandragiri | 27 |
| | Chittoor | 34 |
| | Gudiyatam | 32 |
| | Palmaner | 29 |
| | Pallúr | 35 |
| | Vellore | 36 |
| | Walajapet | 33 |
| | Wandiwash | 37 |
| | Arni | 29 |
| | Kalastry | 32 |
| | Kangundi | 28 |
| | Madderpank | 39 |
| | Punganur | 27 |
| | Patur | 33 |
| | Tertany | 30 |
| | Vencataghericota | 25 |
| Chingleput | Chingleput | 36 |
| | Conjeeveram | 39 |
| | Madurantakam | 37 |
| | Panveri | 45 |
| | Saidapet | 47 |
| | Sattiavadu | 39 |
| | Tiruvallur | 33 |
| | Madras | 49 |

MADRAS—*continued.*

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| | Chidambaram | 42 | | Mutupet | 34 |
| | Cuddalore | 42 | | Negapatam | 45 |
| | Kallakurchi | 32 | | Putukota | 33 |
| South Arcot | Tindivanam | 42 | Tanjore—*contd.* | Shiyali | 48 |
| | Tirukoilur | 34 | | Tanjore | 30 |
| | Tiruvannamalai | 33 | | Tranquebar | 47 |
| | Villupuram | 36 | | Vallam | 32 |
| | Vriddhachalam | 32 | | Anttengiri | 24 |
| | Atur | 34 | | Dindigul | 29 |
| | Dharmapuri | 26 | | Madura | 33 |
| | Krishnagiri | 30 | | Melur | 37 |
| | Namakal | 27 | | Morekulum | 29 |
| | Hosur | 32 | | Muturagunathapatnam | 18 |
| Salem | Salem | 36 | Madura | Periyakulam | 28 |
| | Shevaroy Hills | 60 | | Palni | 24 |
| | Tiruchengod | 26 | | Ramnad | 24 |
| | Tirupatur | 37 | | Sivaganga | 27 |
| | Uttamarai | 32 | | Tirumangalam | 30 |
| | Bhavani | 27 | | Vairavanathapatnam | 25 |
| | Karur | 26 | | Vattanum | 35 |
| | Coimbatore | 21 | | Ambasamudram | 35 |
| | Kollegal | 43 | | Huzzoor | 28 |
| | Dharapuram | 18 | | Nanguneri | 26 |
| Coimbatore | Erode | 24 | | Otapidaram | 23 |
| | Udamalpet | 20 | | Sankaranainarkoil | 22 |
| | Pollachi | 28 | Tinnevelly | Satur | 21 |
| | Palladam | 17 | | Srivilliputur | 25 |
| | Satyamangalam | 24 | | Tenkasi | 38 |
| | Kulitalai | 30 | | Tenkarai | 25 |
| | Musiri | 30 | | Tinnevelly | 29 |
| Trichinopoly | Perambalur | 37 | | Tuticorin | 19 |
| | Trichinopoly | 35 | | Kasaragod | 135 |
| | Udayarpalaiyam | 38 | | Kandapur | 188 |
| | Kumbakonam | 40 | Canara, South | Mangalore | 134 |
| Tanjore | Lower Anicut | 43 | | Udipi | 133 |
| | Mannargudi | 38 | | Uppinangadi | 143 |

## MADRAS—*concluded.*

| District. | Station. | Rain, Inches. | District. | Station. | Rain, Inches. |
|---|---|---|---|---|---|
| Malabar | Calicut | 117 | Malabar—*contd.* | Palghat | 72 |
| | Cannanore | 135 | | Ponani | 103 |
| | Chevayur | 112 | | Tellicherry | 128 |
| | Cochin | 114 | | Tirurangadi | 111 |
| | Kottayam | 128 | | Walawanad | 101 |
| | Manantoddy | 89 | | Wynad South | 151 |
| | Nilambur | 88 | | | |

## CEYLON (12 STATIONS).

| Station. | Rain, Inches. | Station. | Rain, Inches. |
|---|---|---|---|
| Jaffna | 42 | Ratnapura | 150 |
| Mannar | 34 | Colombo | 87 |
| Trincomalee | 60 | Kandy | 84 |
| Batticaloa | 58 | Newera Eliya | 99 |
| Hambantota | 38 | Puttalam | 43 |
| Galle | 90 | Anuradhapura | 51 |

## BURMA (15 STATIONS).

| Station. | Rain, Inches. | Station. | Rain, Inches. |
|---|---|---|---|
| Akyab | 198 | Prome | 53 |
| Kyauk Pyu | 175 | Thayetmyo | 47 |
| Sandoway | 212 | Toungoo | 76 |
| Rangoon | 100 | Moulmein | 190 |
| Bassein | 99 | Tavoy | 196 |
| Diamond Island | 121 | Mergui | 154 |
| Henzada | 77 | Shwegyin | 144 |
| Myanaung | 54 | | |

## BAY ISLANDS (2 STATIONS).

| Station. | Rain, Inches. | Station. | Rain, inches. |
|---|---|---|---|
| Port Blair | 117 | Nancowry | 105 |

## EXPLANATION OF THE PLATES.

PLATE I.—A Map of India, showing the meteorological observatories, raingauge stations, and the divisions of the rainfall provinces adopted in this Memoir. The different classes of observatories are distinguished by the signs shown in the Index. The rainfall provinces distinguished by Roman figures are enumerated at pages 9 to 14. Western Rajputana (IV. 6) and an unmarked area in the east of the Peninsula between provinces V, VII, XI, XII, and XIX, were almost unrepresented by raingauge stations until within the last few years, and are omitted from most of the discussion.

PLATE II.—Chart of the average annual rainfall of India on the scale of 1 inch to 128 miles. The distribution is shown by 9 shades of grey, as enumerated in the Appended Index, their boundaries being the ishyetic lines of 5, 10, 20, 30, 40, 50, 70 and 100 inches respectively.

PLATES III to V.—Charts of the average atmospheric pressure in each month of the year, reduced to equivalent values in Lat. 45°. The data for the land are taken from the table of average barometric values published in the Report on the Meteorology of India in 1883, duly corrected for latitude. Those for the Bay of Bengal, from the marine charts drawn up by Mr. Dallas and published in 1886; also corrected for latitude. The shaded area represents the hill region and table-lands the greater part of which is over 4,000 feet. It has been carried too far south in the Irawadi basin; but data for Upper Burma are wanting. The isobars are given for each $\frac{1}{10}$th of a barometric inch, the figures indicating their values being inserted on the side of the higher pressure.

PLATE VI.—Charts of four south-west monsoon storms passing across India, showing the isobars (uncorrected for latitude) and wind directions on four days for each storm. They illustrate the usual courses of these storms from the Bay of Bengal or the adjacent land on the north or north-west of the Bay (where they originate) either westwards to Central India, Kathiawar, and the Arabian Sea, or north-westwards to Behar, the N.-W. Provinces, and the Punjab. These four storms are noticed at pages 197, 205 and 215.

PLATE VII.—Chart of the average annual rainfall from June to October (the summer monsoon) shown by five gradations of tint, bounded respectively by the ishyetic lines of 10, 30, 50 and 100 inches. Intermediate gradations of 5, 20, 40, and 70 inches are indicated by the lines only. Illustrating the description, pages 26 to 76, and more particularly pages 66 to 72.

PLATE VIII.—Chart of the average rainfall from November to February, including part of the late autumnal rainfall of the Carnatic (pages 77 to 82) and the cold weather rainfall of Northern India (pages 83 to 93). The five tints are bounded by the ishyetics of 1 inch, 2, 5 and 10 inches; the intermediate gradations of ½ inch and 3 inches being shown by lines only.

PLATE IX.—Chart of the average rainfall from March to May; the spring storm rainfall and latter part of the cold weather rainfall of North-Western India. In five tints similar to the preceding chart. Illustrating pages 94 to 116.

PLATE X.—Rainfall charts of Sind and the Western Punjab, shewing the increase of the average rainfall along the irrigated lands bordering the Indus and its tributaries. The ishyetics of 5, 10 and 20 inches are shown by dotted lines, and the average annual rainfall of each observatory and raingauge station, as adopted for the general chart, is given in figures. See page 134.

PLATES XI and XII.—Illustrate the distribution of the rainfall in each of the eight years, 1876 to 1883. A pink tint of three gradations distinguishes those provinces in which the general average was from 5 to 20, 20 to 40, and over 40 per cent. in excess of the normal average; and

a blue tint of three gradations, those in which it was deficient by corresponding amounts. The untinted provinces are those in which it was within 5 per cent. of the normal. To illustrate the descriptions, pp. 164 to 223.

PLATES XIII to XVI—Show the mean distribution of pressure in each of the sixteen months, March to October 1876 and 1877, illustrating the descriptions at pages 165, 172, 183 and 187. The isobars are drawn on the same system as those of the normal charts, Plates IV and V. The green lines are baric isabnormals, showing by how much the pressure locally exceeds or falls short of the normal amount. The thick line is that of no deviation. The dotted lines show an excess by successive increments of ·02 inch; the entire thin lines a deficiency in like manner.

PLATE XVII—Represents the baric isabnormals only of the eight months, March to October 1878, a year of excessive rainfall in the Peninsula. The scheme of representation is the same as that of the preceding plates. See pages 194, 196 seq.

PLATE XVIII.—Curves showing the variations of the mean monthly barometric pressure, in each month of the three years 1876, 1877, and 1878, at four stations in European and Asiatic Russia, in the Himalaya, Lower Bengal and the Bay Islands, these being in some cases the mean of two or more stations; and also at four stations in the Southern Hemisphere. See page 230.

PLATE XIX.—Curves illustrating the annual variations of the rainfall. Figs. 1 and 2 in the Central Provinces and India. See page 139, Figs. 3 to 12 have reference to the discussion of the question of cyclical variation in pages 239 to 250.

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OF

# SUBJECTS IN VOL. III

OF

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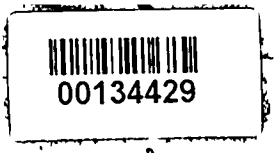


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